

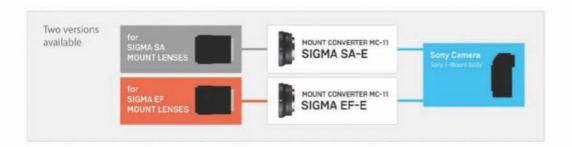
#### SIGMA



### A new dimension for your full-frame mirrorless camera system is here.

With this new mount converter, Sony E-mount camera body owners gain access to a greatly enhanced range of interchangeable lenses. The MC-11 converter is available for either SIGMA SA mount lenses or SIGMA EF mount lenses. By allowing photographers to prioritise the lenses they prefer and use them with various camera bodies, SIGMA is changing the way the world looks at camera systems.

Owners of SIGMA SA mount and SIGMA EF mount lenses can get even more value from their lens assets, as the MC-11 makes them compatible with Sony E-mount cameras. For a list of compatible lenses, please visit www.sigma-global.com.







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A week in photography



This week is all about extremes. Most of us stick within a fairly middle-of-theroad selection of camera settings for the majority of our

work, but this week we focus on what can be achieved when you push your kit to the limits of its settings range, whether that be wide apertures, fast or slow shutter speeds or high ISO settings. Analogue expert Mike Crawford compares the merits of uprating versus high-

Amateur amateurphotographer.



speed film (page 36), and AP's Reviews Editor Michael Topham goes on a night shoot with the Sony A7R III: a camera that excels in extremely low light (page 40). We also shoot low-light street portraits using LED lights. and follow an extreme weather photographer. If you're looking for something a little more sedate how about a visit to a National Trust stately home? We look at Waddesdon Manor this week in the first of a new series (page 22).

Nigel Atherton, Editor







#### ONLINE PICTURE OF THE WEEK

#### Fire and Ice by Will Mallett

Olympus OM-D E-M10 Mk II, 60mm, 1/160sec at f/4, ISO 200

This macro shot was uploaded to our Twitter page using the hashtag #appicoftheweek. It was taken by photographer Will Mallett. He tells us, 'It was the last day of the Beast from the East (part 2), and I hadn't made the most of the snowy weather we had got, so I decided to head out with my Olympus camera. I looked around the garden for inspiration and hoped to find some potentially interesting details to photograph. The colour contrast between the bright reds, oranges and greens of the moss growing on a brick wall with the white of the snow behind it was something that really caught my eye.'





Each week we choose our favourite picture on Facebook, Instagram, Flickr, Twitter or the reader nallery using #applicatibe week. or the reader gallery using #appicoftheweek. PermaJet proudly supports the online picture of the week winner, who will receive a top-quality print of their image on the finest PermaJet paper\*. It is important to bring images to life outside the digital sphere, so we encourage everyone to get printing today! Visit www.permajet.com to learn more.

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CD/DVD Send us a disc of high-resolution JPEG, TIFF or PSD images (at least 2480 pixels along its longest length), with a contact sheet, to the address on page 53. Via our online communities Post your pictures into our Flickr group, Facebook page, Twitter feed, or the gallery on our website. See details above. Transparencies/prints Well-packaged prints or slides (without glass mounts) should be sent by Special Delivery, with a return SAE, to the address on page 53.



#### **NEWS ROUND-UP**

The week in brief, edited by Amy Davies and Hollie Latham Hucker



#### Premium filter kit for Sigma 14-24mm Art Lens

NiSi's S5 filter kit has been designed to overcome the challenge of using filters with ultra-wideangle lenses and a large filter-thread size. Made from premium aluminium alloy, it features an integrated circular polariser that can rotate 360° and can hold two 150mm ND or ND grad filters. Prices start from \$440.

#### Lomography adds super-wideangle lens

The Naiad 15mm f/3.8 lens is the latest addition to the Neptune Convertible Art Lens system. With the system, you use a single base unit, swapping out the front elements depending on the shooting situation. The new wideangle Naiad lens costs £389, while lens bases in various mounts cost £259.



#### Leica adds wideangle zoom to SL system

The Super-Vario-Elmar 16-35mm f/3.5-4.5 ASPH brings the number of zoom lenses available for the Leica SL to three. The 16-35mm lens contains a total of 18 elements in 12 groups, including two aspherical lenses for the correction of aberrations. Available from 23 April, the lens has an RRP of £4,700.

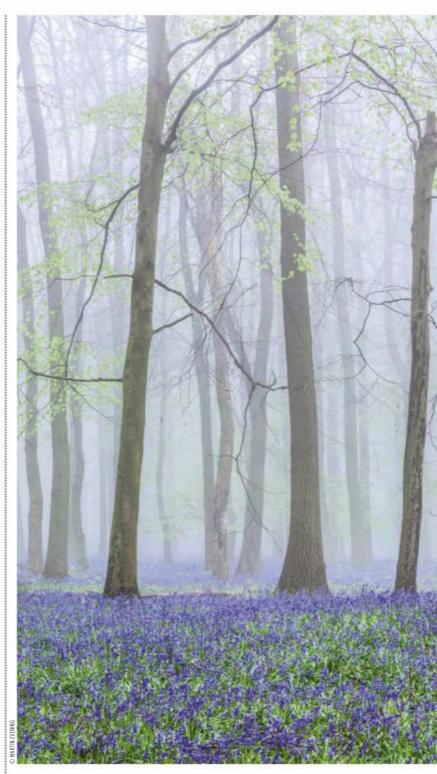


#### Photo Lustre 310 inkjet paper announced

PermaJet's newest paper has a 310gsm premium weight and a lustre surface. Promising a wide colour gamut and bright white base, the paper is also ideal for monochrome images, with PermaJet claiming deep blacks, crisp highlights and a vast tonal range. Prices start from £19.95 for 100 sheets of 6x4in paper.



The Marilyn Stafford FotoReportage Award is now open. The award, facilitated by FotoDocument and supported by Olympus, is granted annually to a professional female photographer towards the initiation or completion of a documentary photo essay addressing an important social, environmental, economic or cultural issue. One overall winner will receive £2,000 towards their project.





See AP contibutor Martin Evening's work - and book yourself on a bluebell walk

Ancient trees, chalk download and lush meadows make Ashridge Estate in Hertfordshire a great place to visit during spring, but the main draw is Dockey Wood, where every year the bluebells are a sight to behold. Regular AP contributor Martin Evening created this wonderful picture on a misty morning in April, when the flowers were





just beginning to emerge and the trees were coming into leaf. An exhibition of Martin's work, comprising around 40 prints, will be on display at the visitor centre over two consecutive weekends (5–7 May and 12–13 May). To find out more about Martin's work visit www.martinevening.com. The estate will be running bluebell walks in the wood on 3 and 5 May (ticket prices apply). A bluebell walks guide is available from the visitor reception. For more about the estate, visit www.nationaltrust.org.uk/ashridge-estate.

Words & numbers

If I could tell the story in words, I wouldn't need to lug around a camera

Lewis W Hine

American sociologist and photographer (1874-1940)







# Dubai-centric series wins Zeiss Award

BELGIAN photographer Nick Hannes has won the 2018 Zeiss Photography Award, 'Seeing Beyond – Untold Stories' with his series 'Garden of Delight'. Nine other photographers were shortlisted for the award, which is in its third year.

The Award, which is a collaboration between the World Photography Organisation (creators of the Sony World Photography Awards and PHOTOFAIRS) and Zeiss, challenges participants to submit a body of work addressing a selected theme.

Shot over five trips from 2016 to 2017, Hannes's series examines leisure and consumerism in Dubai. Each photograph was planned meticulously, with locations ranging from a prototype underwater holiday villa (see below) to a subzero bar in a shopping mall (see above). Hannes uses his project to explore ideas and themes around globalisation and

capitalism, to raise questions about sustainability and authenticity.

More than 90,000 entries were submitted to the awards this year, from over 140 countries.

Jury member Chris Hudson, Art Director for National Geographic Traveller (UK), said, 'The winning series stood out because each image captures a real moment and tells a story of its own. And yet they knit together so well to give an overall sense of what life might be like for locals in the metropolis that is Dubai.'

Hannes, speaking of his success, said, "Garden of Delight" is a self-initiated and self-funded project. I am glad I persevered.'

As the winner, Hannes receives €12,000 of Zeiss lenses and €3,000 to cover travel costs for a photography project. He will also have the opportunity to personally work with Zeiss and the World Photography Organisation.

The winning series and the work of the other shortlisted photographers will be exhibited at Somerset House in London, as part of the 2018 Sony World Photography Awards Exhibition from 20 April–6 May.



#### IGPOTY in new copyright partnership

INTERNATIONAL
Garden Photographer
of the Year (IGPOTY) and
ImageRights are launching
a copyright partnership.
The new partnership will
see winning photographers
in the annual competition
receiving subscriptions to
the ImageRights copyright
infringement service.

First, second and third place in each of the nine main IGPOTY categories will receive a graded ImageRights subscription plan. The one-year prize subscription plans to 1st and 2nd place winners are worth \$588 and \$348, respectively, and that for 3rd place is a custom plan made specifically for the partnership.

ImageRights protects photographers and photo agencies worldwide from image theft and provides a full suite of copyright enforcement services. For details, and to enter the contest, see igpoty.com.



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# Brand new Profiles in latest Adobe update

IN THE latest round of updates for Adobe Camera Raw (ACR), Lightroom Classic CC and Lightroom CC, Camera Profiles have received an overhaul. Now known simply as 'Profiles', they've been moved from the Camera Calibration panel to the Basic panel in Lightroom Classic CC and ACR, and at the top of the edit panel in Lightroom CC.

The capability of profiles has also been expanded, with six brand new Adobe Raw profiles, over 40 new Creative profiles and an all-new Profile Browser that lets you quickly compare and select the best profile for your photo.

Profiles are used to process your raw shots and are compatible with almost all digital cameras.

All the six new Camera Raw profiles were created with the intention of producing a unified look and feel, regardless of the camera used. This can be helpful when processing



Adobe's latest update includes six Camera Raw profiles

pictures from different cameras at the same shoot or when upgrading from an older model to a new one. The profiles include Color, Monochrome, Landscape, Portrait, Neutral and Vivid.

Adobe has also made Camera Matching Profiles easier to find. These can be used to match the different options found in-camera, to match the colour and tonality of your raw file with what you see on the camera's screen or JPEG created by the camera.

Other updates in the latest version include adding Dehaze control to the Basic panel, optimising the face-tagging algorithm and expanding the tone curve panel size for more precise adjustments.

Additional updates have also been made to Lightroom CC, Lightroom CC iOS and Lightroom CC Android and ChromeOS.

The update is available now as a free download for subscribers. For more details, see adobe.com.

#### Back in the day

A wander through the AP archive. This week we pay a visit to April 1940



THIS week, we go back to 17 April 1940 – a dark time in this country's history. There's something very powerful and moving about this issue of AP. If ever the editorial team and readers needed to keep calm and carry on, it was now: the seemingly unstoppable German war machine was pushing the Allied armies to the edge of France, necessitating the Dunkirk evacuation a month later, while the Battle of Britain had yet to start. But AP kept rolling. The bulldog spirit can be seen throughout the issue, and there was even a competition called 'Carry On,' encouraging readers to keep taking pictures. 'The war has been directly responsible for a considerable number of new recruits to our hobby,' noted the editor, with admirable positivity. Readers were, no doubt, also distracted by a spread on Pictorialism, complete with an image of a topless model. It was seen as artistic back then, so it was OK. This issue proves that even in the toughest of times, photography can be a positive, uplifting pursuit.

#### Luminar software gets speed boost

SKYLUM'S Photoshop alternative, Luminar, has received a big update, bringing with it significant performance enhancements. Dubbed the 'Jupiter' release, it's available as a free update, and offers improved raw conversion and parity with Mac and Windows to give both versions Batch processing, Free Transform and Flip and Rotate features.

The speed of editing across all areas of the program has been dramatically increased. Images open faster, filters are applied quicker and the entire application is more responsive. Meanwhile, the improvements to raw-processing functionality include wider compatibility with more cameras, fewer halos, cleaner gradients, better exposure compensation and reduced chromatic aberration.

Numerous interface and userexperience improvements have been made based on user feedback for an



Luminar's 'Jupiter' release speeds up editing

improved editing experience. Several 'under-the-hood' enhancements have been made to add stability. The Skylum team has also concentrated on making the Windows experience better and faster. The PC version now matches the Mac version for all core features.

If you already own Luminar, the Jupiter release is available as a free download. Otherwise, Luminar can be bought for a one-off fee of \$69.

For the latest news visit www.amateurphotographer.co.uk



Keep calm and carry on, with a side order of tasteful nudity

he fundamental physics of cameras hasn't changed. To quote clarkvision.com, 'The lens collects light, the focal length spreads out the light and the pixel chops up the light in to small details'. As photographers, our raison d'être is to collect light, measure it, change how it looks, then show the end result to others. Our duty is to the expression and communication of ideas, but our currency is light.

Ever since the invention of the camera, there has been a great deal of innovation around the way we capture light and then render it. However, in terms of camera design, the SLR has been one of the mainstays of photography - so much so that I not only take it for granted, but oftentimes other design solutions seem immaterial. That line of thinking has been well and truly trounced by the introduction of the mirrorless body, which both Fuji and Sony have exploited to great success. By moving to a digital sensor, you can solve the problem of simultaneously seeing what the lens sees by having an EVF. It is the simplest of camera designs - the light passes through the lens directly onto the sensor. And, by removing the mirror box (and so reducing the flange distance), you make substantial savings in terms of size and weight. Compare, for example, a Nikon D850 (915g/46.5mm) with a Fuji X-T2 (507g/17.7mm). In fact, stick the 27mm f/2.8 pancake lens on a Fuji M1 (as I have done) and you have a diminutive street camera.

But... mirrorless isn't a magic bullet. The critical point to consider is system equivalence. For the Sony full-frame mirrorless, there is no crop factor, so, for the same lenses you get equivalent performance. But wait a minute, the Sony FE 70-200 mm F2.8 GM OSS (for example) weighs 1.5kg, compared to the Nikon equivalent at 1.5kg. Total system weights are 2.15kg (A7III) and 2.41kg (D850), meaning the Sony weighs 10% less. The lenses are the same. Key point 1: you can't cheat the physics of light – lens size/weight will always be similar for equivalent performance.

What happens when the systems aren't equivalent, such as with APS-C or Four Thirds sensors? Remember, crop factor



Is mirrorless all it's cracked up to be?

#### 'Smaller sensors mean a loss for wideangle and low-light performance'

affects both focal length and aperture. Smaller sensors mean a net gain in reach but a net loss for wideangle, low light performance and bokeh.

Take, for example, the very wellregarded Fuji 56mm f/1.2, in comparison with the Nikon 85mm f/1.4, at 405g and 595g respectively. The weight saving seems considerable - but look again. In equivalent terms, the Fuji lens is an 84mm f/1.8. You've got similar focal length but slower aperture performance. That means wider depth of field, less latitude for shutter speed and poorer bokeh. The last of these is more difficult to quantify, but take a look at the Bokeh Calculator (bobatkins.com) which allows you to do just this. For these lens combinations, the background blur is about 30% greater for the Nikon.

Mirrorless brings a lot of tricks to the digital party, but part of staying ahead of the (professional) competition is offering something that others can't. The Sony A9 is a game changer for sports photography and mirrorless is a big winner here. But the use of smaller sensors by Fuji, Olympus and Panasonic presents significant disadvantages in the areas of low light and bokeh. Which is why Sony's long-term plan for full-frame mirrorless is so exciting – there are genuine and rapid advances being made. The ball is firmly in the court of Nikon and Canon – the response will be exciting to watch.

Mike Smith is a London-based wedding and portrait photographer. Visit www.focali.co.uk

#### In next week's issue

On sale Tuesday 18 April



### Workflow fixes

We cure your editing and printing headaches for amazing results



#### Panasonic G9 field test

Find out how the Lumix G9 fared on a challenging trip to a subantarctic island

#### Film stars - Canon A-series

John Wade explains why film users will enjoy using Canon's A-series models



#### Using Camera Raw

The latest updates make camera profiles easier to use, explains Martin Evening

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EXPERIENCE BETTE



#### PUSH THE BOUNDARIES Technique



ost photographers shoot the majority of their photographs during daylight hours and in dry conditions at between 10-20°C. That's to be expected. They are the type of conditions that are most conducive to going outside with a camera: you don't need any special equipment or clothing, and you can just grab your camera and go – even your tripod and bag can be left at home if you mount your favourite lens and accept its limitations.

As our eyes are our windows to the

world, it's only natural that we lift the camera to them to take a photograph and use the settings that we're most familiar with. But our cameras are capable of shooting in a much wider range of conditions than that and they can deliver superb results outside of their optimum set-up. There are a number of creative opportunities to be had by pushing the boundaries of your camera: for instance, by going above the usual sensitivity values, using very fast or slow shutter speeds, venturing away from the optimum aperture, shooting into the sun and

maybe using different accessories.

It's also rewarding to shoot photographs in more unusual conditions – perhaps braving a rainstorm, biting cold or thick fog. And rather than standing up to shoot, perhaps drop to your knees or even lie down occasionally and try to capture a low-level shot. It means you need to do a little preparation before you start shooting, but it's worthwhile.

Over the next few pages we'll take a look at how to extend the range of camera settings and shooting conditions to get more interesting images.

#### Technique

## Playing with shutter speed

Go from freezing high-speed action to capturing flowing movement within a scene

#### Going long

Long exposures allow you to blur movement, and extremely long exposures enable you to blur slow movement like the transition of clouds across the sky. It's a technique that works especially well with landscapes shot in less-than-perfect weather, often making the sky look more dramatic and stormy or creating leading lines that pull your eye in to the main vista.

It's normally too bright during the day to shoot an exposure measured in whole seconds or minutes, but a neutral density filter can be used on the end of your lens to cut out some of the light. A 'strong' filter that cuts out 10EV or stops of light, like the Lee Filters Big Stopper, is ideal as it turns a 1/60sec exposure into a 15sec exposure, but there are stronger and weaker filters available if you need them. Lee Filters ProGlass IRND filters, for instance, are available with densities of 2, 3, 4, 6, 10 and 15EV. As well as enabling very long exposures in 'average' conditions (1/60sec becomes 8min), a 15EV filter is useful if the light is very bright or you want to use a wide aperture.

While long exposures are most often used with landscape photography, they can be useful/fun with city scenes. In busy areas, a long exposure can enable you to blur-out people or traffic or, if you prefer, record them as a blur to give a sense of the jostling crowd.



Still or slow-moving people will be caught as ghostly figures



#### Freeze!

At the other end of the shutter speed range, you may have noticed that some cameras allow you to set very short exposures. Top selectable shutter speeds of 1/4000sec or 1/8000sec are not unusual with mechanical shutters, while electronic shutter speeds can be set as high as 1/32,000sec.

These fast speeds, often combined with high frame rates, allow you to capture fast-moving objects or fleeting moments that previously required specialist kit. Water splashes, diving birds and sneezes can all be rendered sharp.



#### Steady does it

Most camera manufacturers have some form of image stabilisation system, either lens or camera based, that enables you to handhold your camera at shutter speeds far longer than would normally be possible. This means that the old rule of using the reciprocal of the effective focal length (ie 1/100sec at 100mm) no longer applies, so it's well worth doing a bit of experimenting to see how long a shutter speed you can use and still get a sharp result.

To do this, set the shutter speed you want to try, and shoot a sequence of 10 images. Then shoot another 10 with a

slightly faster or slower shutter speed before adjusting the exposure time again and reshooting. Then download your images to your computer and check all the shots to find out which are sharp (looking at 100% on screen). Find the shutter speed at which 5 of your 10 images are sharp. Then you know that on average, provided that you shoot at least two images, you should have at least one that's sharp at that shutter speed.

Shooting at slow shutter speeds handheld is incredibly liberating: suddenly you're able to shoot blur movement without a tripod and opportunities present themselves everywhere.

#### High-speed flash

Traditionally, when using a flashgun the shutter speed is limited by your camera's flash sync speed, typically 1/200 or 1/250sec. However, many flashguns now offer a High-Speed Sync (HSS) mode that allows you to shoot at faster-than-normal shutter speeds. If you're shooting a portrait, you might want to use a wide aperture to blur the background, but you need a burst of flash to give the image a bit of pop and fill-in the shadows. If your flash sync speed is 1/200sec, you may have to compromise on the aperture and amount of background blur. If you use HSS mode, though, you can push the shutter speed up and fire away at maximum aperture.



#### Drag the shutter

As an alternative to shooting with a fast shutter speed with your flashgun, try using a longer exposure, say 1/15sec, with your flash to get nice balance between the ambient light and flash.

Modern flashguns make this easier than you might think. Just set your camera to

manual exposure and set a shutter speed that gets the background looking as you want it with an aperture that gives the depth of field you require. Then switch the flash to TTL mode so it takes care of the main subject's exposure. If flash is a bit too dark or bright, use the flash exposure compensation to adjust it accordingly.



OLITINAULS/ISTOCKLIIOTO - AKUT\_ASTUO

#### Technique

#### **Be** sensitive

Experiment with the ISO settings your camera offers, you may just be surprised

High and low

For a while now, there's been a battle among camera manufacturers over the low-light capacity of their cameras. High-sensitivity (ISO) values grab headlines, and consequently, one or two cameras have had expanded sensitivity (ISO) values that are unusable – the Nikon D5 at ISO 3,280,000 springs to mind.

However, that's not to say that all sensitivity settings in a camera's expanded range are bad. Some cameras have lower than standard values such as ISO 32 and ISO 50. While these don't usually produce images quite as good as at the lowest standard value (normally ISO 100), they can be helpful when you want to use a slower shutter speed than is possible within the native range.

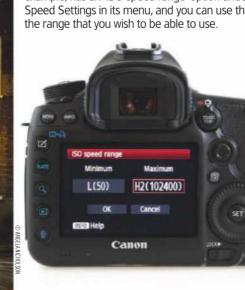
With the higher ISO values, I'd recommend staying within the native range if you can, as details can get a little bit smeary above that. However, don't be too 'old school' about the upper value that you use – image processing and noise control has come a long way in recent years, and in many instances, you can shoot at ISO 12,800 or even ISO 25,600 and ISO 32,000 and get a decent result. These high settings open up a whole range of shooting opportunities. For example, shooting local bands in pubs where the lighting isn't quite as good as at Wembley Arena, and you need a shutter speed that will freeze their movement without flash. Similarly, the first dance at a wedding.

There are also some creative reasons for shooting at a high ISO value. In fog, for example, the light is low, nothing looks very sharp and the grain of image noise can add atmosphere to a photograph.



#### Expanding the range Some cameras merely indicate when a setting is

some cameras merely indicate when a setting is outside the manufacturer's recommended sensitivity range, but others require you to turn on the expansion range before you can access them. Canon, for example, has an 'ISO speed range' option under ISO Speed Settings in its menu, and you can use this to set the range that you wish to be able to use.







#### **Auto ISO**

The Auto ISO setting lets you set the sensitivity range for when the camera is in Auto ISO mode. If you want your camera to stay under a certain value, you can set it as the maximum. If you want to use the full native range, this is also possible. Some cameras also let you set the minimum or default sensitivity and minimum shutter speed as well as maximum sensitivity in

Auto ISO mode. This is useful for ensuring that you always have a shutter speed that will deliver sharp images.

The Fujifilm X-T2 offers three customisable Auto ISO settings, so you can set up the camera to suit different shooting conditions. If you're shooting a band, for example, you can specify a high minimum shutter speed so that their movement is always frozen.

# Auto ISO range Minimum Maximum 100 25600 OK Cancel

#### Open and close case

Many photographers often spend a lot of time worrying about creating sharp images. For example, closing down the aperture a little to get a tad more sharpness but steering clear of the smallest apertures to avoid the worst excesses of diffraction. But let's live a little and stray away from mid-range apertures such as f/5.6 and f/8.

With a long lens, a wide aperture like f/2.8 gives you very shallow depth of field, and if you go close you can really blur the background while the foreground can almost disappear. It means you can really pull out your subject through selective focus, but of course you have to be very careful about where the point of focus falls. If you're shooting handheld, it can help to switch to continuous focusing and continuous shooting. This way the focus adjusts if the camera moves and you can fire off a sequence of images in anticipation of one having the focus exactly where you want it.

Closing down the aperture gives you more flexibility with your focusing because there's a greater depth of field. Have some fun looking for subjects, such as rows of chimney pots and drystone wall patterns, where there's lots of interest from the foreground and the background.

### Extreme weather

shooting

Must-haves for extreme weather conditions

#### ▼ Spare batteries

If you're shooting in extreme/
persistent cold, take a few
batteries for your camera (and
flashgun if you're using
one), and keep them
nice and
warm in
an inside
pocket.

**▼**Bin bag

A bin bag weighs next to nothing and can be carried at all times, ready to cover your gear or provide a clean surface to kneel or sit on while shooting.



Before going inside from the cold, put a couple inside a ziplock bag with your camera to keep moisture away from your camera; condensation will form outside the bag.

#### Raincover

Even if your camera is weatherproof, a raincover gives it some extra protection and keeps critical areas like the memory-card port door dry, so you can change the card if necessary.



#### Technique

## **Creativity** at the edge

If you want to really open up your creative possibilities, have a play with these ideas

#### Close and wide

One of the great characteristics of short focallength lenses is that you get lots of depth of field. That's normally put to good use with landscape photography, but it's also useful for close-up work.

If you go close with a short focal-length lens, you get perspective distortion combined with a wide angle of view. This means your subject looks big and there is lots visible in the background. Go close to your portrait subject's nose, say, and their hooter will look massive, while their ears appear small and you can see their surroundings. For the right person (with a sense of humour or a thick skin), it can be very effective.

I like using this close-and-wide shooting method with objects that are low to the ground, and shooting upwards, but it's also good for subjects that you want to dominate in your image while still having context.









Bigger view

If you have a DSLR, I recommend switching to live view mode when you focus manually, especially with macro photography. It's usually possible to enlarge the image so that you get a very clear view of your subject, and you can be very precise with the focusing.

Many cameras also have a Focus Peaking mode that, when activated via the menu, puts coloured highlights along the points of highest contrast, which are usually the sharpest areas. Although this is designed to help with focusing when shooting video, it can also be extremely useful for macro photography.

#### Larger than life

Most macro photography tends to be about getting 1:1, that is, life-size reproduction. There are a few lenses, such as the Canon MP-E 65mm f/2.8 1-5x Macro, that let you capture subjects at larger than life size, but most photographers tend to opt for a set of extension tubes.

At its most basic, an extension tube is a tube of plastic with a mount at either end to enable it to be fitted between a camera and lens.

Moving the lens further away from the camera reduces the minimum focusing distance that means you can make the subject much larger in the frame.

More sophisticated extension tubes often have the word 'Auto' in their name and they have the electrical

contacts to maintain the communication that normally takes place between a camera body and lens. That means that the TTL metering system will work, and you are able to adjust the aperture via the controls on the camera. The autofocus system may also function, but it's usually best to focus manually.





#### Micro-positioning plate

Use one or even two of these between your tripod's quick-release plate and your camera to allow very precise adjustment of the camera's position with a turn of the thread.

#### Macro lens ▶

Available in Sigma, Canon and Nikon mounts, the Sigma 105mm f/2.8 EX DG OS HSM Macro lens is one of the best and most popular macro lenses available, giving 1:1 reproduction at a comfortable working distance of 31.2mm.



#### Macro flash ▶

A macro flash or flash ring fits on the end of your lens to get light directly onto the subject, while a hotshoe connection maintains TTL exposure control.





# The Storn In his latest book, Arizona-based Mike Olbinski takes readers on a tour of America's extreme weather. He talks to Oliver Atwell



#### 'When he was eight... a lightning bolt hit a few 100ft behind his house... That experience stayed with Mike for years'

Mike's story is less dramatic but no less significant. One day, when he was eight years old, he was sitting on the porch with his father, watching a storm crawl across the landscape. And then, without warning, a lightning bolt hit a few 100ft behind his house. It was so bright it blinded him for several seconds. That experience stayed with Mike for years. It meant that when, a few years later, he became interested in photography there was only one thing on his mind: storms.

'The first photo I took of lightning, back in 2009, was shot with a point-and-shoot Sony camera,' says Mike. 'Around that time, I'd been looking at lots of lightning images online. I'd bought the camera because I wanted to take photos of my newborn daughter, but as I began exploring the functions of the camera, I saw that it could take three shots a second. That got me thinking that if I could hold the camera up to a storm and shoot a few frames, maybe I could get a reasonable image of lightning. So I started going out. Every time I held the camera up to the storm, I would pray something would come out. It wasn't until the third or fourth time out that I managed to get something great - three bolts of lightning hitting the landscape. I sent the image to a local TV station, and they put it on air that night. Right away, I knew I needed a DLSR that was capable of shooting long exposures. My wife and I sold our DVD collection and raised \$600 so that I could buy myself a Canon EOS Rebel model. That was when it all began.'

very storm chaser has their story – that one event in their early life that set their destiny on a path to recording nature's awesome displays. When I ask Mike about his, he starts by relaying a story told to him by a couple of storm-chasing brothers he met some years back.

'Storm chasers have some pretty crazy stories,' he tells me from the safety of his home in Arizona. 'I met these brothers who, when they were kids, lived in a trailer park. One day, A blast of lightning over a 10-second period illuminates the iconic Superstition Mountains, east of Phoenix a tornado pretty much destroyed their home. Their mother actually got pulled out of the window and then blown back in. They ended up having to hold her down on the couch so she wouldn't get sucked out again. It was a traumatic experience for them, but it planted the seeds of something. You'd think they'd be terrified of tornadoes, but when they grew up they actually became storm chasers and went after tornadoes across the country. They became fascinated by them.'

#### A very special storm

These days, Mike is reputed to be one of the most namechecked storm photographers out there. His images are a masterclass in the genre, and some of his aweinspiring YouTube time-lapse videos have racked up over 200,000 views. Success didn't come quickly, though. In 2011 one of Mike's time-lapse videos of a dust cloud rolling over Phoenix went viral, but Mike doesn't consider his work coming to fruition until two years later



when he captured an image that finally encapsulated everything he had been working towards. That image of a storm cell over Booker, Texas (see above right) – included in his book *Storm Chaser* and filmed as an accompanying time-lapse video on YouTube – is something to behold.

'At that time, I had been going out for four or five years trying to see something like that and had never succeeded. I was still learning how to storm chase, basically. All the images I had were murky and ugly, just clouds and rain. Then one day, it came together. We were on the right side of the storm. I looked over at the landscape and saw this otherworldly thing floating over Texas. The sun was going down and cast this eerie colour over the land. It was everything I had always wanted to see, and suddenly, there it was. Not only was it an incredible

supercell structure, it was the best of that year. Within 20 or 30 minutes it was this apocalyptic scene, with an orange sky over a cornfield and dust getting sucked up into the sky. I had a friend with me who was shooting video. To date, his video has had 10 million views and it keeps going up. It was a very special storm.'

#### Stills vs time lapse

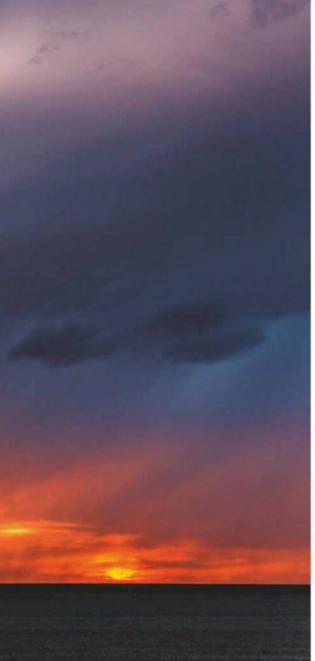
Mike's work is essentially multimedia, working with both stills and video. If there's a particular image in the book you enjoy, there's likely to be a video to go with it.

'The thing about time lapse is that the video is just still images,' says Mike. 'If I set up a shot of a storm and shoot 1,000 frames for a video, then I have 1,000 individual photos. It could be that one of those images features a lightning strike that will Above: A stunning sunset and lightning bolt, Scott City, Kansas

Top right: A small down draft of rain over the Tohono O'odham Nation, south of Phoenix

Above right: The 'perfect' supercell (according to Mike Olbinski) hangs over Booker, Texas, like a giant UFO make a great single shot. These days, I shoot with a Canon EOS 5DS R, so that each image is 50MP. That gives me the freedom to crop the images if there's a particular area I want to emphasise.'

Saying that, Mike does give himself some freedom. Rather than rely on one camera, he can often have three or four on the go. For example, one camera will have a lightning sensor attached that will detect a lightning strike and communicate to the camera to take a shot. Another camera will be pointed towards a specific area of the location. In addition, he'll have his phone and maybe even a handheld camcorder. All these things ensure he covers all bases. 'I use a lot of different lenses,' says Mike. 'For time-lapse, I'll use a wideangle optic like the Canon 11-24mm. Because the 5DS R is a 50MP camera, a really sharp lens







can ensure that every area of the image is sharp. I'll also use other lenses, such as a 35mm or a 50mm, maybe even a 135mm. Perhaps one wideangle lens is covering the whole storm, but then I'll point the 135mm to a storm that's building up in the distance. Then I can point the 50mm at a wall-cloud area where maybe a tornado will drop.'

Mike will also have a laptop secured on a mount, so that he can use radar and log his GPS location, which is particularly handy because it helps him to know exactly where he's located in relation to the storm, where the rotation is, and where a tornado will be. 'I have a couple of antennas on the roof of my car for Wi-Fi, as well,' he continues. 'That's key otherwise I won't get radar information. Other than that, I try and keep it simple. I already have three or four tripods, cameras and camera bags. Then a charger in the



Mike Olbinski is a storm, family portrait and wedding photographer based in Phoenix, Arizona. You can see more of his work at www.mikeolbinski. com, and see his storm time-lapse videos at www.youtube.com/user/MikeOlbinski. His book, Storm Chaser, published by White Owl, is priced at £25.

back where I can keep my batteries topped up. I used to take an umbrella with me but, man, those winds out there just tear them up! Anything else is just one more thing that I have to pack up if I have to leave in a hurry.'

#### The open road

While, of course, a great storm makes for a great image, it would be nothing without the ideal stage. Mike's images are almost studies of the American landscape as the forces of nature shape and mould them. There's something almost classical about them.

'When it comes to the landscapes, I'm not much of a foreground person,' says Mike. 'For lightning and storms, I like to find elevated places where I can look down on a valley or where the land is sloping down, especially if there's a lightning strike. Then the viewer

can see where the bolt lands. I hate it when lightning lands behind something, like trees or bushes. For the most part, I'm looking for flat and stark areas. I want the storm itself to be the star of the image.'

One of the most interesting recurring motifs in Mike's work is the inclusion of the open road, a historically American token. The road carries us into the scenery and places us squarely in the location. 'When you're out there in these locations, there sometimes isn't anything visually interesting in the image to sit against the storm,' says Mike. 'Sometimes it's just grass and reeds. But sometimes, if you place your camera in the middle of the road, you visually travel towards the storm. Also, the inclusion of the road in the image just kind of speaks of what I do. I am always on the road chasing storms. It's just so symbolic.'



# Stately views

Visiting a formal garden offers great opportunities for refining your compositional skills, says Justin Minns

addesdon Manor is a magnificent house built in the style of a 16thcentury French Renaissance château and, approaching along the long drive, you could easily believe you were in France rather than Buckinghamshire.

Built by Baron Ferdinand de Rothschild in 1874, Waddeson is famous for its Victorian-style gardens, with a boldly coloured parterre, ornate fountains and statues and a Rococo-style aviary full of rare exotic birds. In short, there is plenty to inspire photographers. Look beyond the formal gardens though and it has even more to offer. Surrounded by rolling parkland and woodland walks, the 6,000-acre estate boasts picturesque views of Oxfordshire, the Chiltern Hills and the Vale of Aylesbury.

#### Justin's top tips

- Take advantage of manmade and natural lead-in lines. These lines don't have to be straight or bold either, since a winding path or the curve of a river bank can lead the viewer's eye through the image to a specific focal point.
- Shoot something original by setting yourself a mini project. Choosing a theme or concept will help you to maintain focus, and encourage you to think more creatively. The subject can be anything you like.
- Look for natural frames to draw attention to your main subject: trees, archways and flowers all work really well. You might even like to experiment with throwing the foreground completely out of focus to create a natural wash of colour.

Visitors to National Trust properties can take pictures out of doors for their own private use. Amateur photography (without flash and use of a tripod) is permitted inside some National Trust properties at the General Manager's discretion. The National Trust does not permit photography at its properties for any commercial or editorial use without first seeking permission from National Trust Images. Fees may be charged. (Licensing images of National Trust properties through professional image libraries isn't permitted). Requests to use any photographs for commercial or editorial use should be directed to images@nationatrust.org.uk.



#### Waddesdon Manor

Location: Off the A41 between Bicester and Aylesbury.

Cost: The grounds are free to National Trust members all year round, and the house is free to members from March to October. Entry to the house is by timed ticket, and booking is advised. Refer to the website for ticket prices.

**Opening times:** The grounds open at 10am (Wed-Sun) until 4 November. The House opens from 12pm-4pm (Wed-Fri) and 11am-4pm (Sat-Sun) until 28 October 2018



#### **Shooting advice**



#### **Justin Minns**

Justin is a landscape photographer and workshop leader who has been working with the National Trust for several years. His images have been widely recognised in photography competitions including Landscape Photographer of the Year. Visit www.iustinminns.co.uk

#### Frame the view

Using a natural frame in an image, such as looking through an archway, is an effective compositional technique to focus attention on the main subject. Taking Waddesdon Manor as an example, the house and formal gardens are surrounded by a belt of woodland and by shooting from beneath the trees the branches could be used to frame views of the house.

Framing has other benefits as well: the distance between frame and subject can create a sense of depth in the image and the frame can also be used to conceal distracting elements or partially cover a dull sky. It pays to be bold, so make sure that your frame is strong and your subject is clear.

#### Set yourself a project

When visiting somewhere like Waddesdon Manor, it's tempting to go with the flow, moving from one well-known view to another and replicating the shots most people take. To come away with something more original, why not set yourself a mini photography project for the day?

Photography projects give us a theme or a concept for our work, encouraging us to think more creatively about the subject, the result of which will, hopefully, be a more coherent set of images on our subject.

The subject can be anything you like. You could choose to simply shoot with a single prime lens all day, shaping your compositions to suit that focal length. Another option is to pick a certain aspect of the place you are visiting. Waddesdon Manor, for example, has sculptures throughout the gardens so you could choose to shoot those, in their environment, their expressions, textures... the possibilities are endless. Whatever your theme, spend time exploring the subject to try to move beyond the usual views.



#### Use lead-in lines

Stately homes such as Waddesdon Manor often have landscaped grounds with driveways and sweeping paths designed to give dramatic, or sometimes glimpsed. views of the house. These paths are ready-made lead-in lines, so take advantage of them and use them to add impact. For example, a straight driveway positioned to come in from the bottom corners of the frame will create powerful diagonal lines pulling the viewer's eye into the picture. Wideangle lenses are ideal, as they emphasise the foreground and increase the sense of perspective. Lead-in lines don't necessarily need to be straight. A path, or waves lapping the shoreline, say, are great ways of guiding the viewer's eye through the frame.



#### KIT LIST



#### ▲ LUMIX DC-G9

This compact system camera has a flip-out screen and is great for situations where you want to adopt a low angle to include strong lead-in lines. The sensor delivers plenty of detail too



#### Panasonic DMC-FZ1000EB

With a large 1in sensor and a 25-400mm (35mm equivalent) zoom lens, this camera has all the flexibility you need for a mini photo project.



#### ▲ Leica 8-18mm f/2.8-4 ASPH

This Micro Four Thirds 8-18mm (16-36mm 35mm equiv.) wide zoom lens is perfect for making the most of low-level lead-in lines in your pictures.



#### ▲ LUMIX G X Vario 12-35mm

The versatile focal length of this fast zoom lens (24-70mm 35mm equiv.) is ideal for creating a frame within a frame and the f/2.8 aperture is useful for shallow depth of field.







#### Join Panasonic LUMIX

#### at Waddesdon Manor

#### Come along between 10-5pm on 5/6 May

AS part of its longstanding relationship as official photography partner for the National Trust, Panasonic will be holding events around a variety of stunning National Trust properties over the coming months. The team will be at Waddesdon Manor in Aylesbury, Buckinghamshire on 5/6 May. Waddesdon Manor, managed by the Rothschild Foundation on behalf of the National Trust, was built by Baron Ferdinand de Rothschild in the 19th century to showcase his collection of furniture, porcelain, portraits and

other decorative arts. The Manor was built in the style of an early 16thcentury French chateau, and the grounds feature a parterre with raised ribbon bedding schemes.

On the weekend of 5/6 May Panasonic LUMIX will be offering visitors to the property the chance to try out its latest cameras and lenses, and to take advantage of expert advice. Normal entry fees (and photo restrictions) apply – see page 22 for details. To find out more visit www.waddesdon.org.uk or phone 01296 820414.



#### How to get there

 By car: Waddesdon Manor is just off the A41 between Bicester and Aylesbury in Buckinghamshire. For Sat Nav users the postcode is HP18 OJH. The main visitor entrance is via Silk Street.

By rail: Regular trains run from London Marylebone to Aylesbury and Aylesbury Vale Parkway. The nearest train station is Aylesbury Vale Parkway. A taxi or bus journey is required to get to the Manor. A free shuttle bus runs from Aylesbury Vale Parkway station to the property [21 March to 28 October].



#### Other events coming up

The Panasonic LUMIX Roadshow, in partnership with the National Trust, will be touring various properties this year (see below), and AP will feature articles with tips for shooting some of these beautiful locations. See nationaltrust.org.uk/panasonic-roadshows

Killerton	Devon	12/13 May
Stowe	Buckinghamshire	19/20 May
Dinefwr	Wales	2/3 June
Studland	Dorset	9/10 June
Fountain's Abbey	North Yorkshire	16/17 June
<b>Bodiam Castle</b>	East Sussex	23/24 June
Lacock	Wiltshire	30 June/1 July
Knole	Kent	7/8 July
Mount Stewart	NI	18/19 August
Giants Causeway	NI	1/2 September
Dunham Massey	Cheshire	8/9 September







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# ETTER OF THE WEEKWINS A SAMSUNG EVO PLUS MICROSD CARD. NOTE: PRIZE APPLIES TO UKAND EU RESIDENTS ONLY

# Inbox

**Email** ap@timeinc.com and include your full postal address. **Write to** Inbox, Amateur Photographer, Time Inc. (UK), Pinehurst 2, Pinehurst Road, Farnborough Business Park. Farnborough. Hants GU147BF

#### **LETTER OF THE WEEK**

#### Break the rules

James Paterson's article 'Break the rules' (AP 17 March) came as a breath of fresh air, addressing so many contentious issues and taboos - in photography. Taboos such as ignoring the clipping of highlights and shadows, using high ISOs despite their effect on image quality, tilting horizons, making unconventional crops, shooting at midday rather than the 'golden' hours, leaving white balance on auto, creating portraits in which the eyes are either out of focus or not visible at all, ignoring the rule of thirds... you name it! Of the 20 issues Paterson addressed, I am happy to admit that I routinely use 16. And there were memorable words from Paterson too. 'Rules help us take better pictures, but blind devotion can result in clichéd pictures' - which chimes well with the thoughts of landscape guru Joe Cornish in 'Seers of scenery' (AP 31 March): 'No place is a photographic cliché. The only clichés are the overused, mindless and derivative approaches used in making pictures of these places...' In the same article, Ross Hoddinott says: 'Being technically adept alone will not get you very far in a creative industry such as photography.'

Don't get me wrong, I am not saying that using correct photographic technique and adhering to (at least some of) the 'rules' do not have their place. Let's take the case of professional photographers whose clients may well expect such quality. Or the entrants to an important photographic competition or a Royal Photographic Society distinction. Adherence to high photographic standards is mandatory in such situations. I am firmly of the view that the subject and/or content of a photograph are what are most important, with technical aspects some way second. No matter how technically perfect an image is, it is nothing if its subject matter is lacking. And I know I am not alone in this view. I have been running a photographic blog for seven years, and time and again such sentiments have surfaced, from photographers around the world.

We photographers are all different from each other. We hold varying outlooks on 'how photography should be' and none of us is right or wrong – we are simply different. And highlighting and explaining such differences is one of *Amateur Photographer*'s core objectives and uses.

#### **Adrian Lewis**

Thanks, Adrian. At the end of the day, photography is a creative endeavour. As with music, it's important to learn the basics, but if everyone then simply followed the 'rules' there would be no Mozart, Beethoven or The Beatles – Nigel Atherton, editor



#### **Exquisite Roger**

While Roger Hicks's column is always an outstanding read, his 'Unidentified girl' (*Final Analysis* in AP 24 March) was brilliant. His analysis of the photograph is as considered as we have come to expect. And his move to explain the girl's emotions and state of mind, the past that brought her to this point and the future that lay ahead for her are as sensitive, perceptive and moving as anything he has written. His eloquence brings an ordinary photograph to life and makes it breathe.

His query about our own heirlooms and poignant reminder that 'we cannot keep everything from the past' is, in many ways, a bombshell. It is ironic that we take countless photographs every day, and upload hundreds daily to social media, and yet we collect and pay ever-increasing prices for old cameras and old photographs (including from unknown photographers). What, indeed is an heirloom any more?

A great choice of photograph and an exquisite piece of writing. **Ian Clark** 

#### Lumix laments

I thought that your review of the Panasonic Lumix G9 (AP 27 January) was overly harsh. I find it hard to understand why it wasn't awarded the five stars that it so obviously deserves. But, I agree with your condemnation of the newly launched DC-GX9 (AP 24 March), especially when I compare it with its predecessor.

When it was reviewed by AP. the GX8 (22 August 2015) was awarded five stars and a gold rating. And, even now my GX8 is a stunning little piece of technology. As a left-eye shooter, I find it hard to correctly position the autofocus points (my nose renders the touchscreen pointless), and a G9-like iovstick is a necessary addition. But, as I read the DC-GX9 review, I noticed that a list of my favourite features were deleted one by one. Yes, there is a slightly better sensor, better JPEGs, and better image stabilisation. But, I don't think these make up for the less flexible rear screen, lack of decent

handgrip and less shower-proof build. Although, saying that, weighing less can only be a positive. After all, the whole point of Micro Four Thirds is to provide great performance in a smaller, carry-anywhere package.

There is one bit of your Lumix GX9 review that I disagree with. As a long-term Lumix user, it's easy for me to quickly change settings, such as white balance, drive modes, ISO and focus modes, without taking my eye away from the viewfinder. I guess if you are not very familiar with the Lumix control layout, you would have to study the back of the camera.

So, I think I will pass on the GX9 and either save up for a G9 or wait patiently for the GX10, which hopefully will have all the good points of my current GX8, but also a better sensor, image stabilisation and joystick, and it might be slightly lighter and a little more compact.

#### **David Price**

Any review is ultimately a personal opinion, although in the case of our camera reviews, it's a highly informed one – we have extensive experience of shooting with cameras of every brand. Of course, it's only natural that some photographers will disagree with our assessments if they have different needs and preferences, and I have no problem with that at all – Andy Westlake, technical editor

#### The shape of water

In his letter 'Water bored' (*Inbox* in AP 7 April), John MacAlister makes some interesting points. I personally like the long-exposure effect on water, but being in Cornwall I am surrounded by it and am used to seeing it in its 'usual state', so to speak. I find that a longer exposure captures some of the movement I experienced while I was there, and thus some



AP awarded the Lumix DC-GX9 4 stars



lan feels that an exposure of 0.5-1sec helps to keep some water movement

of the mood I experienced. However I find an exposure between 0.5 and 1sec keeps some of the movement while not totally changing the aspect of the water. The shot above, which I took earlier this year, is an example. As you say, each to their own! Ian Lewis

Great image, Ian. As you say, each to their own, and it's always good to try new things - Geoff Harris, deputy editor

#### Feeling faint

Your recent article about making the best photographic prints was interesting and informative but contained a minor irritant. The author consistently uses 'feint' ('a deceptive or pretended blow or other movement, especially in boxing or fencing') in place of 'faint' ('the print was so faint it was almost invisible'). It's a pedantic point as, in context, the intended meaning is obvious but it's still incorrect usage. Sorry for nitpicking.

**Philip Gibson** 

We fell for this particular feint, so we will take it on the chin. Keep on nitpicking so that we can keep delivering the best possible magazine - Nigel Atherton, editor

#### Praise the Bishop

When reading the Macro Special edition (AP 24 March), I came upon Sue Bishop's section of the article 'Mastering macro'. The name seemed familiar to me. and I remembered that Sue was once a member of the Reigate Photographic Society, to which I belong. Since leaving, she has given talks to the society on the

subjects of close-up photography and landscape photography.

Reading through the magazine, I came upon some photographs that seemed very familiar too. It was only when I read the name of the author that I realised the reason why. Many of the images were identical to some that I had chosen to illustrate my report in the Society's online newsletter on a talk that Colleen Slater had given to us in December 2017. As an admirer of both photographers' work, I was particularly pleased to see them feature in the same edition of your magazine.

**Peter Flower** 

#### Total recall

Adrian Lewis's comments in his letter 'Tell it like it is' (Inbox in AP 17 March) about his dislike of the 'Back in the Day' column is a good reminder of the definition of people in two minds who look forward to what has been achieved in the past, but turn their heads away from what is still to come. Looking backwards in this useful AP context is a strong reminder of just how far photography and camera technologies have come.

Jolting the memory can be a useful therapy. Equally, looking ahead under a banner of 'still to come' could explore the possible nature of bold ideas and concepts. Insights into the next generation of image making would not go amiss. My vote is for a balance of alternating columns looking backwards and forwards, with a certainty that these will generate views/comments. Knowing about yesteryear gives good recall; knowing about the future initiates a new sphere of understanding. **Peter Ouinn** 

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## Reader Portfolio

Spotlight on readers' excellent images and how they captured them



#### Andrea Heribanova



Having worked at Kew Gardens in London for nine years, it's no surprise to learn that Andrea Heribanova began her foray into photography with macro, before branching out to cover the wider landscape. These days, her favourite

subjects are London and seaside piers, so whenever she has time she visits one or the other. 'If I have a day or two, I'll drive over to Sussex, Kent, Dorset or the Somerset coast to capture the piers in different conditions,' she explains. 'I prefer landscapes without people, which is why I mostly shoot on weekdays.' In the future, Andrea plans to get up earlier to shoot sunrises, rather than just sunsets, and improve her post-processing skills. Visit www.andreaheribanova.com.

#### The Shard

1 The magical view from Sky Garden (a skyscraper with a top-floor restaurant) in London, coupled with a wonderful sunset and perfectly placed clouds Nikon D800, 16-35mm, 1/50sec at f/8, ISO 500, 0.6 ND soft grad

#### Tower Bridge

2 Having walked down the river in search of a suitable view of Tower Bridge, Andrea settled on a spot close to St Katharine Docks and took her image at low tide Nikon D800, 16-35mm, 30 secs at f/11, ISO 50



#### St Paul's Cathedral

**3** This is a classic viewpoint of St Paul's Cathedral from the Millennium Bridge, but the sunset was one of the most extraordinary Andrea had ever witnessed. Everything was bathed in a beautiful orange glow and the sky turned purple Nikon D800, 16-35mm, 60 secs at f/22, ISO 50, 0.6 ND soft grad, 3-stop ND



winner chosen every week will receive a Manfrotto PIXI EVO tripod worth £44.95. Visit www.manfrotto.co.uk
Lightweight and portable, the Manfrotto PIXI EVO boasts two different leg angles with a sliding selector enabling and to shoot ground lovel impacts It's adjustable with two section logs featuring five different stops that adopt the shoot ground lovel impacts It's adjustable with two section logs featuring five different stops that adopt the shoot ground lovel impacts It's adjustable with two section logs featuring five different stops that adopt the shoot ground lovel impacts It's adjustable with two section logs featuring five different stops that adopt the shoot ground lovel impacts It's adjustable with two section logs featuring five different stops that adopt the shoot ground lovel impacts It's adjustable with the section logs.

是 Lightweight and portable, the Manfrotto PIXI EVO boasts two different leg angles with a sliding selector enabling you to shoot ground-level images. It's adjustable, with two-section legs featuring five different steps that adapt the footprint to uneven surfaces. With a payload of 2.5kg, you can tilt the camera 90° to capture incredible images.



Please see the 'Send us your pictures' section on page 3 for details or visit www.amateurphotographer. co.uk/portfolio





The Shard at Christmas 4 Taken from the 10th-floor viewing deck at Tate Modern, this image shows the hourly light show held at The Shard at Christmas time. Space was tight and Andrea wasn't able to use a tripod, hence the high ISO Nikon D800. 16-35mm, 0.4sec at f/4, ISO 1600

Piccadilly Circus

Andrea had been after a shot of the lights of Piccadilly Circus reflected in the rain for some time, but had to wait even longer for a red bus to pass by. The area was less crowded than usual due to the weather Nikon D800, 16-35mm, 1/80sec at f/6.3, ISO 640



# Sandhill cranes at dawn By David Tipling

When **David Tipling** visited Bosque Del Apache nature reserve in the USA little did he know he was about to take one of his most memorable images

ver the past three decades, I have been privileged to photograph in many of the world's premier locations for birds. Few have inspired me more than Bosque Del Apache - a wild corridor of wetlands and cottonwoods along the Rio Grande - in New Mexico, USA. Spectacular scenery and often beautiful dawn and dusk lighting are the basic ingredients which, when combined with thousands of geese and cranes, give the opportunity to play around with techniques and explore myriad picture styles.

Bosque Del Apache first appeared on my radar in 1993. I had recently launched a photo stock agency named Windrush Photos. Specialising in birds, I set about recruiting the best talent I could find, and one of the first photographers I approached was the American bird photographer Arthur Morris. One morning, a huge box of transparencies arrived on my doorstep.

Editing Artie's pictures was a joy, and as I made my selections, I kept noticing that some of the most eyecatching pictures came from Bosque Del Apache. Among them were frames depicting snow geese and sandhill cranes in beautiful light.

Fired with enthusiasm from seeing these pictures, and armed with a long letter of instructions from Artie, I made my first visit to the National Wildlife Refuge with a photographer friend in December 1999. This first trip was a huge success; we took thousands of images. But on reviewing my efforts at home, I had no stand-out shots. However the Bosque bug had taken hold, and we returned in early November 2002.

An unforgettable scene Wednesday, 6 November of that year will forever be etched in my memory, thanks to the spectacle we witnessed at dawn. The day started like any other. We awoke nearly two

hours before sunrise. After a coffee and muffin in the lobby of our motel in Socorro we headed out into the car park, where we found that our car windscreen was covered in a thick coat of ice. It was -5°C; this drop in temperature had followed a warm day with the temperature up in the mid-20s. As we headed out of the town, we started to hope we might get a nice ground mist rising from the water as

the sun came up – it seemed to be perfect conditions.

Just east of the approach road to the reserve, shallow ponds were packed with roosting geese and cranes. Stars still twinkled above us but the eastern sky was becoming lighter. We walked over to one of the ponds that held the motionless cranes. With just a few minutes to go before sunrise and the sky becoming orange, our expectations were





**David Tipling** 

David Tipling is a widely published wildlife photographer with a passion for birds. He is the author or commissioned photographer for more than 40 books, including the recently released *A Bird Photographer's Diary*. David runs Norfolk Photo Safaris and leads tours. For more information, visit www.norfolkphotosafaris.com.



rising as ground mist hung over the water. On a neighbouring pond, geese were already getting restless, and with a roar, thousands took to the air.

Determined not to be distracted, I waited, exploring

'The mist took on an orange tone and the pond appeared to be on fire' different compositions with my 500mm lens. I lined up on one group, played around with depth of field, decided how I was going to shoot the scene, and waited. As the sun started to peek above the mountains, the mist hanging above the water took on a deep orange tone and the pond appeared to be on fire – the scene was breathtaking. I worked quickly, shooting two rolls of Velvia 50 slide film,

bracketing a few shots as I went to ensure I had the image in the bag. It lasted just two or three minutes, as when the sun fully emerged from behind the mountains, the light became too strong; the moment had passed. I knew that morning that I had witnessed something special. I have visited many times since and enjoyed mornings with ground mist, but that fleeting moment has never been repeated.

#### **EQUIPMENT**

Even though digital photography was growing, in 2002, I still shot with film. My Nikon F5 was mounted on a Nikon 500mm f/4 lens. Although the lens had a deep hood, I also had a piece of cardboard with me. I held this over the top of the end of the hood to ston the sun.

to stop the sun from spilling into the lens and causing flare.

# Step into the light

**James Paterson** discovers just how easy it is to do a challenging, night-time, outdoor portrait shoot using simply a light stand and the versatile **Rotolight NEO 2** 

n outdoor portrait session after dark is the kind of shoot that really tests both a photographer's kit and technique. As well as challenging the low-light performance of the camera and lens, it's also a trial of lighting skills. Streetlights, neon signs, shop windows and car headlights can add to the atmosphere, but with all that mixed lighting going on, it can be tricky to capture the subject with ambient light alone.

Typically at this point many of us would reach for a trusty speedlight to add a burst of flash to our subject. But this isn't the only option. An LED like the Rotolight NEO 2 offers the shoot-what-you-see, instant gratification of continuous light for greater ease of use and more control. So there is no need to spend time taking test shots

or light readings to work out an output. We simply switch it on, tweak the power dial and judge the strength of the light by eye. We can balance the LED either to work harmoniously with the lighting or overpower it.

It's this ability to see exactly what we're getting through the viewfinder that makes using the NEO 2 such a pleasure. For those who have previously been put off flash due to its complexity, continuous lighting is much easier to grasp. It lets us



Use the Rotolight NEO 2 to add light to your subject at night

Using an LED such as the NEO 2 gives you great control

bypass the technicalities of output
– and the sometimes intangible
nature of flash – and instead focus
our attention on more important
things like the position of the light,
composition and posing.

Power in reserve

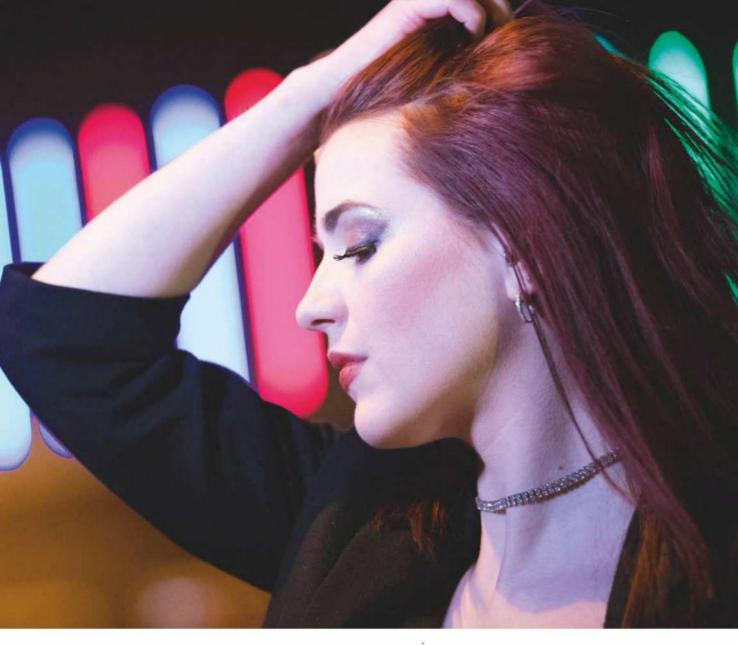
On a night shoot like this the first task is to work out the correct exposure for the ambient lighting, so it will be correctly exposed in the final image. Because the street lighting wasn't very bright a high ISO of 6400 was required for the main image - at 1/200sec and f/2.8. The next step is to introduce the NEO 2 and adjust the output to the level of the background light. Shooting at that kind of ISO we have more than enough power and only needed to set the NEO 2's output at 35%. This is reassuring as it means we had a

couple more stops of continuous



light output in hand had we needed it. Plus, if that wasn't enough, the NEO 2 offers an innovative flash mode that increases the maximum output of the continuous light by another 250% (and that's just with batteries; when plugged into the mains the increase is 500%). Also, the flash is capable of high-speed sync at shutter speeds up to 1/8000sec. There's no recycle time, and the flash never gets hot.

The NEO 2 also gives us control over colour temperature, ranging from a cool 6,300K to a warm 3,150K. So unlike flash, there's no need to attach gels or filters over the light source. Instead we simply dial in the desired colour temperature on the back. When shooting after dark it means we can either match the NEO 2 with the surrounding ambient streetlights for a naturallooking set-up, or experiment with mixed-temperature lighting by, for instance, having a cool light on our subject mixed with warm tungsten lamps in the backdrop.



Another big benefit of using the NEO 2 outdoors is its size and portability. It's small enough to fit into a coat pocket and light enough to throw into your kit bag without having to think twice about whether your back can handle the weight two hours into a shoot. For a city shoot like this there's another bonus to the size. It's less obtrusive than a monoblock and less conspicuous than a speedlight, so there's a lower chance of attracting unwanted attention from curious bystanders or jobsworths when out and about.

The NEO 2 is light enough to be held in one hand while holding the camera in the other, or simply fitted to the camera's hotshoe. However, for greater versatility we can fix the NEO 2 to any stand, tripod or monopod with a standard thread. This is very helpful when shooting portraits, and also gives us another means of controlling the strength of the light, as we can move it closer or further away from the subject.

As with any light source, the

closer the light source is to the subject the softer the light becomes, as this increases its size in relation to the subject. So for a shoot like this we can get great results by bringing the NEO 2 in fairly close to the face. The quality of light is akin to a beauty dish, in that it's both hard-edged and flattering. As the light is circular, it gives attractive circular catchlights in the eyes.

As for power, with full batteries the NEO 2 offers up to 1.5 hours of continuous light at maximum power, or up to 85.000 flashes at maximum flash power. This should be plenty for most needs, and if it does run low then the six AA batteries can be replaced on the go.

For portability and ease of use alone the NEO 2 more than proves its worth on a demanding shoot like this. Add on top of that the HSS flash, colour temperature control and flexibility this pocket-sized pioneer gives us to shoot both stills and video, and this feels like the future of lighting.

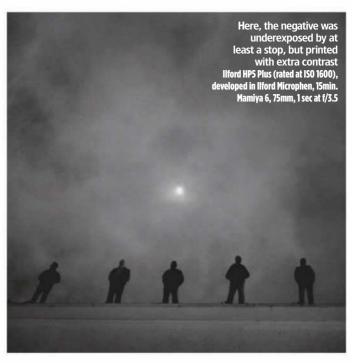
#### **Expose for** the ambient



When lighting a scene it's worth thinking of our shot as two separate exposures. First there's the ambient light; then there's the light we add in. As such, it can be helpful to begin by exposing for the ambient light first. The image above shows how our scene looks with just the ambient light. Although the face isn't well-lit, the background is properly exposed and there's the bonus of a subtle hair light coming from the streetlights behind the subject. So it's a decent starting point, as from here, we can use the NEO 2 to lift the subject's face (see image on page 34).









## **Mike Crawford**

Mike Crawford is a London-based photographer and specialist printer working primarily in urban landscape and portraiture. His work has been exhibited widely in the UK and abroad. For over 20 years he has run Lighthouse Darkroom, one of the UK's premier photographic labs, printing for many leading photographers. See www.mike-crawford.co.uk.

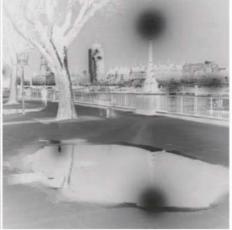
# Make film work harder

Darkroom specialist **Mike Crawford** shows how pushing 35mm film can yield attractively moody images on a night walk along London's South Bank

or a number of years I have been fascinated with photographing cities at night. This has resulted in an ongoing series called Nocturne, which has been shot in various locations on 35mm, concentrating on the more anonymous corners of cities. For this project I prefer to photograph with a small handheld camera, allowing greater flexibility and a more spontaneous method of working than purposefully setting out burdened with a heavy tripod.

## Technique FILM SPEEDS





Ilford Delta 3200 rated at ISO 1600

Ilford HP5 Plus rated at ISO 1600

## **Comparing** negatives

When examining and comparing negatives of Delta 3200 and HP5 Plus (both rated at 1600), it is easy to see the differences between the two films. With the Delta 3200, the range of tones between the strongest highlight and deepest shadow is far more gradual than in the HP5 Plus where the jump is quite apparent. In most instances, this difference in contrast can be compensated for when printing the negative by choice of paper grade or adjusting Levels or Curves in Photoshop. Delta 3200 will definitely give more grain, but that is part of its character. Having printed both, I prefer the Delta 3200, though the HP5 Plus negatives produced an excellent print on a higher grade with selective burning and a post flash adding a slight bit of tone into the highlights.

Although I use a high ISO film – Ilford Delta 3200 – I still find myself working at its limits, often shooting at f/2 at 1/30sec. Being a fast film, it is relatively grainy which is then accentuated by lith printing on outdated Seagull Oriental paper. This process not only adds depth, texture and atmosphere to the work, but also unifies the series with the same signature style.

## Why high-speed film is essential

Aside from the night photography, there are other instances when a higher film speed may be essential. Concerts and stage performances in particular benefit from faster shutter speeds to freeze the action while interior shots lit by available room lighting may require a higher-speed film to capture detail. Traditionally this is achieved by uprating films such as Ilford HP5 Plus or Kodak Tri-X from ISO 400 to 1600 or more, by underexposing and increasing development times to compensate. This is otherwise known as 'push' processing.

With thoughts about future projects, it was a good time to make some tests to explore and compare the differences between these two methods of working, whether to uprate or use a high-speed film. I set out for a night walk on the South Bank in London with two types of film (HP5 Plus and Delta 3200); two formats (35mm and 120); and for some of the tests, a tripod.

## Compromises to be made

MIKE'S TOP TIPS

There is always going to be a compromise when film is uprated. With digital, the sensitivity of the camera sensor increases accordingly as the ISO is raised. But for film, there is no possibility to change its sensitivity; indeed the only option is to lengthen development of the latent image, which provides more density, and contrast as well as increasing grain. Changing the

ISO from 400 to 1600 or beyond does not make the emulsion more receptive to light; on the contrary, we are purposefully underexposing the film, which can reduce shadow detail. This sounds like an anomaly, but it is done to give a stop or more exposure to enable a smaller aperture and more depth of field or a faster shutter speed so the camera can be used handheld.



## Meter carefully

Make sure your meter readings are balanced between the highlights and the shadows. In low light there will often be a lack of midtones to meter, so it's best to try to find a midpoint between the two. Avoid metering only the highlights unless what is required is a low-key image.





## Print flashing

In extreme instances, when the negative highlights are blown out and difficult to burn in, print flashing may help to bring in detail. Just a fractional exposure to light before or after printing can help to control the print's highlights. Digitally, this technique is replicated by tweaking the highlights in Curves.



## **Processing**

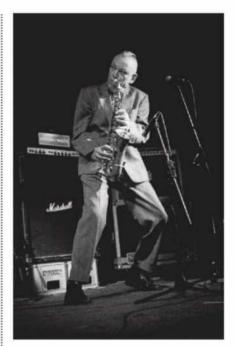
It is important to process correctly when uprating film. General-purpose developers such as Ilford ID-11 and Kodak D-76 can give good results, certainly up to two stops, but I decided on Ilford Microphen for the majority of my tests. Other suitable developers include Kodak T-Max, Rollei High Speed and Acufine, which was a particular favourite with theatre

## 'An ideal subject for push processing would be a scene with relatively low contrast'

photographers for decades, though is not currently available in the UK. Microphen is formulated to raise film speed while effectively minimising the increase in grain, at least in theory; however, in practice as I would be pushing HP5 Plus three or four stops, increased grain was certainly likely.

An ideal subject for push processing would be a scene with relatively low contrast and a limited tonal range. Extended development will increase the negatives' highlights at a far greater rate than the midtones and shadows so the nearer these tones are to each other, the smoother the tonal range will be when uprated. However, the situations when we tend to need a higher speed are often the opposite: night scenes with bright highlights and deep shadows or concerts with spotlit performers on a black stage.

This can be an advantage of using a film such as Delta 3200 or Kodak T-Max P3200 (which is back in production), because the negatives usually have a softer contrast than a pushed film, making them easier to print or scan. Indeed the true speed of Delta 3200 is closer to 1600, meaning it can be advantageous to process accordingly, giving a smoother tonality. However, while the contrast is lower, the grain is often more apparent than pushed film, so ultimately the choice will depend on the photographer's preference. For myself, it was good to test the different possibilities and to have so many options for future work.



## **Stage** photography

I used to photograph a lot of bands and nearly always shot on HP5 Plus (and its predecessor HP5) or Tri–X, processing in either llford Microphen or Acufine. However, this shot of Ted Milton of Blurt was on Delta 3200, cropping slightly to make him more central. I had previously been out photographing in the evening so had some Delta left in my camera, and while I don't mind the grain, given the choice I would probably have shot the concert on HP5 Plus at 1600. I think the extra contrast would have helped, and for once I would have preferred a bit less grain.



## For more extreme pushing

Print developer is useful if coarser grain and high contrast is required or if a film has been so underexposed that conventional developers will not produce usable negatives. Clip testing is advised. As a starting point for HP5 Plus at ISO 1600, 10 minutes in PQ Universal 1+9 works well.



## When less grain is needed

For smoother results, pushing T-Grain films such as Kodak T-Max 400 should produce less grain than traditional emulsions. T-Max developer is recommended for this film (or llford DD-X for less contrast), combined with a gentle agitation pattern. Experiment with agitation to control film granularity.

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## Development times

If there are development times published by the film's manufacturer for the developer used, it is always best to start with these. It may then be necessary to adjust times to the photographer's preferences. If no times are available, try adding 30% per stop to standard development times.

# Ditch the

Equipped with the Sony Alpha 7R III, Michael **Topham** offers an account of his first Timeline Event at Didcot during the hours of darkness

## At a glance

£3,199 body only

- 42.4MP full-frame BSI CMOS sensor
- ISO 100-32,000 (expandable to ISO 50-102,400)
- In-body five-axis stabilisation
- 3in touch-sensitive LCD
- Dual SD card slot





hen you have a desire to photograph a particular subject at a particular location, you'll do almost anything to try to make it happen. Something that's been on my bucket list for a while is to revisit the former Great Western Railway shed at Didcot to capture some evocative night-time shots of the bygone age of steam. Like many photo assignment ideas I think of, getting permission to access the location is the first hurdle to overcome. A search online takes me to a few low-light images of suitably dressed enginemen taken inside Didcot's iconic shed. Unbeknown to me, Didcot Railway Centre has become a popular location for filming and photography in recent years.

Widening my search takes me to Timeline Events - a company dedicated to bringing heritage and photography together to recreate scenes from the past, with a focus on British transport and industrial heritage dating back to the

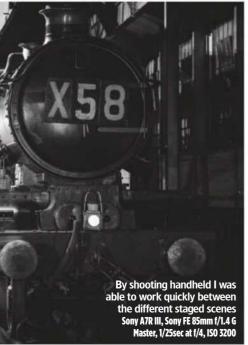
Victorian times. As my luck would have it, a space was available on its next organised shoot at Didcot, which promised great atmosphere at night, with re-enactors playing the roles of former railway staff to give scenes with added human interest. Without a second thought, I booked myself a ticket. All I needed now was a camera - one I could rely on to deliver sensational results in what would be an extremely demanding environment.

Having previously put the Nikon D850 through its paces in low light, it seemed only right to find out how its closest rival, the Sony A7R III, would get on with such a challenge. I remember being awestruck the first time I used Sony's five-axis in-body image-stabilisation system on the A7 II. The way it allowed me to shoot handheld images with incredibly slow shutter speeds and achieve sharp results was spellbinding. The rapid pace at which in-body image stabilisation has developed, combined with the vast improvement in low-light performance of high-resolution









sensors, has changed the way we approach many shooting scenarios. This got me thinking. What if I attempted the evening shoot at Didcot without a tripod and ditched my sticks? For as long as I've been a photographer I've always used a tripod when shooting at night, but this felt like the ideal opportunity to take a chance and rely solely on my handheld technique.

Three days before the event, I receive an email from Timeline Events with details of the location, start time, recommended clothing and advice on what kit to bring. The shooting etiquette is also explained, with courtesy to others being a priority at all times and the use of flash or any autofocus-assist beam being forbidden. With carefully arranged continuous lighting positioned around the engine shed, however, neither would be necessary.

## Time for tea

On arrival at Didcot, I retreat to the warmth of the café, with 27 like-minded photographers, for a warming brew and safety briefing from the event coordinator. Neil. As the different shooting scenarios for the first session are explained, I pull the A7R III from my bag and doublecheck that SteadyShot is enabled. To my surprise, we're asked not to take bags with us into the railway shed - something that's insisted upon to prevent trips or falls in the dark. This presents a bit of a conundrum. What lens do I use and what else should I take? Opting for the versatile Sony FE 24-70mm f/2.8 G Master on the body, I squeeze two of my favourite lenses - the Sony FE 85mm f/1.4 G Master and Sigma 20mm f/1.4 DG HSM Art coupled to an MC-11 adapter - into my pockets.

I couldn't bring myself to make the 200-mile round trip without packing my tripod, but as all the other photographers rush to attach cameras to theirs, I decide to keep to my original plan and leave it behind with all my other redundant kit. The seconds I save faffing around setting up tripod legs allows me to be one of the first to take up prime position at

## Testbench In the field

the front of the shed. The scene that greets me is timeless. The steam locomotive standing isolated, beautifully lit from the side with smoke imitating steam escaping from the cylinders is testament to the efforts of Timeline Events.

As I squat below others who've set up on tripods at waist level, I immediately start to appreciate how much more flexible working without a tripod can be in this type of environment. It'll count for nothing, of course, if I'm unable to support the camera well enough in my hands, but from reading how well the A7R III's sensor performs at high ISOs, I'm confident as I go into my first shot.

Neil gives us all a few minutes to refine our settings as props are tweaked to ensure the scene is as realistic as possible. Conscious of not opening the lens wider than I need to, I start in aperture-priority mode. The A7R III is giving me a shutter speed of 1/15sec at f/4 at ISO 3200. A quick double tap of the A7R III's touchscreen to check sharpness at 100% confirms that my handheld shots aren't suffering from handshake, not even at the longest end of the zoom. As the re-enactors prepare to pose and the countdown 'three, two, one and freeze' is called out, the resounding sound of shutters breaks the silence. Seconds later, with several sharp shots in the bank, I look to recompose from a wider angle while being mindful not to bump into those shooting lengthy exposures around me. As the '20 seconds' call is shouted out, I have a few moments before

the re-enactors take a short rest between poses. In this short timeframe I rattle out another series of shots. This time, I'm down at 1/8sec, bracing the A7R III's electronic viewfinder firmly against my eye while squeezing the shutter ever so softly to keep the camera as steady as possible. Whereas many of those around me have succeeded in recording just a couple of shots from one position, I've managed to shoot more than 20 frames in a minute from two different perspectives. Leaving my tripod behind feels like a decision well made at this early stage.

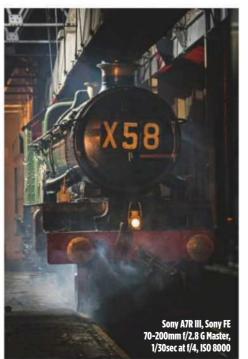
## Raising the sensitivity

The beauty of photographing at a location such as Didcot is that you're never short of subject matter. On the opposite side of the shed, two further scenes are arranged for everyone to move between - one of an engineman exchanging an oil lamp from the stores and another of a young cleaner in discussion with a railway inspector, clipboard in hand. Both are much moodier scenes, with considerably less light than the first. With the same aperture/ISO combination from my last shot, I find myself at a shutter speed of two seconds. Unable to compensate for handshake at this speed, I have no choice but to attach a faster lens and bump up the sensitivity to ISO 12,800. As those in front of me jostle their tripods and take time to frame up their shots, I've already started shooting.

Sneaking between two other photographers allows me to capture



## Mike's tips for shooting handheld



THE SLOWEST shutter speed you'll be able to get away with depends on many factors. and it goes without saying that you'll significantly increase your chances of capturing pin-sharp shots if the subject you're photographing is stationary. The effectiveness of image stabilisation and how well your camera's sensor performs at high sensitivity is crucial, but don't let this undermine the importance of having a sound technique. Bracing the viewfinder firmly against my eye while supporting the lens in my left hand and softly squeezing the shutter is how I like to work with small-tomedium-size lenses. With longer, heavier zooms such as the Sony FE 70-200mm f/2.8 G Master, I use a different technique. Resting the long barrel of the lens on my arm and pulling the camera body tightly into my chest with the screen tilted upward to aid composition creates a rock-steady makeshift base. I successfully captured shake-free images with said zoom set to 200mm right down to 1/30sec at ISO 8000 using this technique. It's all about exploring what works for you, so be sure to try different methods.







a quick series of shots using the FE 85mm f/1.4 G Master as the re-enactors practise their poses before freezing in position. Though I'm not averse to shooting the staged scenes from the same position as others, I'm already starting to think about alternative angles. Having the freedom to roam around the shed as I please while being mindful of others is fantastic. I went into the evening half suspecting that we might be herded around like sheep, all being asked to shoot from the same spot, but as Neil briefly explains to me before pausing for a break, it's important to give photographers who pay to attend these events the flexibility they need to get creative with composition otherwise everyone walks home with identical shots.

As the clock strikes 8pm, the main shed lights are switched on. This is our cue to head back to the café to warm up and have a hot meal. During this time, the events team rearranges the lights and checks the smoke machines. This pause in proceedings presents me with a chance to back up and review my shots. I'm not regretting my decision to shoot exclusively handheld in the slightest, and I'm overwhelmed by how well the A7R III's sensor is handing noise up to ISO 12,800. Pleased with what I've

## Testbench

captured thus far, I'm eager to find out where I'm willing to draw the line when it comes to how far the sensor can be pushed before noise severely degrades image quality.

Refuelled and ready to shoot again, I revert to using the Sigma 20mm f/1.4 DG HSM Art coupled to the MC-11 adapter to capture some wider scenes and attempt a few handheld shots at 1/2sec. Though not every frame is perfectly sharp, many are, which reinforces the importance of taking plenty of shots at such slow shutter speeds. You might argue that if I were using a tripod, I wouldn't need to worry about shake at all, but I'm finding the freedom of working without one outweighs the benefit of setting up every shot with one. Another reason I'm in favour of shooting handheld, and using a shutter speed of faster than one second, is that it helps define the wisps of smoke slightly better. The problem I've found with using shutter speeds longer than one or two seconds in the past is that the smoke or steam can obscure areas in a scene you don't want it to and doesn't portray the ambience of the scene as we see it with our eyes.

## Striking silhouettes

With half an hour of shooting time remaining, Neil and his team tweak the lights once more to create some moody backlit silhouette opportunities. This presents some of the best scenes of the night and with the sensitivity pushed to ISO 25,600, I'm shooting at 1/160sec – the fastest shutter speed I've used all evening. As the event starts to wind down and everyone begins to pack up their kit, there's a whip round for the re-enactors who've kindly given up their time for the evening - a nice touch and one I'm only too happy to contribute to. Without their help, the scenes and the shots I'm walking away with wouldn't have anything like the same impact. After saying my goodbyes to the other friendly photographers I've met on the night, it's time for the two-hour drive back to Kent, which gives me plenty of time to reflect on my experience of attending my first Timeline event and shooting with the Sony A7R III.

Not knowing much about Timeline Events and going into my first experience blind, so to speak, did make me question how it all works on this type of arranged photo shoot. The logistics, planning and expertise that go into running a successful night-time event is no mean feat, and it was brilliantly executed by Neil and his team of helpers. Spending £65 for a ticket and getting the chance to shoot such fantastic scenes at an iconic location feels like a small price to pay to get some great shots. Unless you happen to be granted privileged access to a heritage railway,



there aren't many ways to take such nostalgic shots for less money.

A fine performer, but not perfect

The A7R III was given a hard workout during the event, and though I can't deny that it has come on in leaps and bounds from the A7R II, I did identify a few areas where there is room for improvement. I couldn't fault the speed or accuracy of the autofocus system in the tricky low-light scenes. However, I experienced great difficulty viewing the focus area in Flexible spot mode. Unhelpfully, this is a dull mid-grey, which is barely visible when attempting to reposition the focus point over dark subjects using the joystick. Why Sony didn't choose to highlight it in orange, as it appears when the AF area is moved using the touchscreen, is beyond me. Hopefully, this will be rectified sooner rather than later with new firmware. Another minor gripe is the way you have to go into the settings to tell the camera to record images to the second card when the card in slot 1 is filled. This is something I'd like to see set as default out of the box as I wasted a few vital minutes

rooting through the main menu before realising I could switch to my second 64GB SD card from the quick menu.

Battery life was a huge concern going into the shoot, knowing how short the NP-FW50 battery lasts in the A7R II. The bitterly cold weather and high number of shots I planned to take weren't conducive to long battery life, but having started with 100% capacity I was only down to 31% by the end of the evening. I took just shy of 700 shots during the event and didn't come close to falling back on the spare battery or USB battery pack I'd taken as backup. At home the following day, I discovered the camera only charges via USB when it's completely switched off. It would be useful to have the option to view battery status at any time by assigning it to a Custom Key.

A small but extremely useful feature I discovered while shooting is the option to double tap the screen anywhere in the image in playback mode. This loads a magnified view of the precise area vou've specified and is particularly good for analysing sharpness in specific areas of the frame. It can save vital seconds moving around from a central magnified position.



the sensor to its limits. The majority of my shots during the evening were taken at ISO 3200 and ISO 6400.

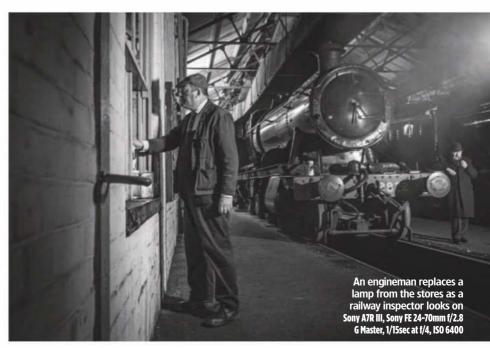
## **Conclusion**

Ditching the tripod and relying solely on shooting handheld in a low-light environment did come with an element of risk. However, it's something I'm pleased I tried. There's an unwritten rule that we always have to shoot on a tripod when working at slow shutter speeds or in low-light situations, but that's not always necessary and in some circumstances it can be beneficial to work without our three-legged friend. Not everyone will want to take the same approach as me, and I acknowledge that many prefer the slower and more precise method of setting up on a tripod. What's important, though, when you're limited by time and presented with an amazing shooting experience is to make the most of the situation. Shooting handheld, not being afraid to raise the ISO, and working quickly between staged scenes is exactly how I'd approach a similar event in the future. Thanks to the advances in image stabilisation and performance of today's best camera's sensors, we're offered more flexibility than ever before.

Looking forward, I've already started my research into other Timeline Events that are being held throughout the year. Whether it's railways, vintage buses, boats, aircraft or wildlife that might appeal to you, there are fantastic Timeline events being run every week for everyone to capture stunning and unique images. I highly recommend visiting www.timelineevents.org.

No field test would be complete without mentioning the camera's image quality, and the next day I get stuck into the editing process. Loading my five-star rated images into DxO's PhotoLab software and running them through the highly effective Probabilistic raw image enhancement (PRIME) denoising engine squeezes the best out of each file. 'Extraordinary' and 'impressive' are the two words that spring to mind as I inspect the level of detail the A7R III's sensor has resolved in my slow shutter speed handheld shots and those taken at high sensitivity settings. Being vigilant and cautiously removing noise, but not to the extent of hindering sharpness, produces very pleasing results right up to ISO 12,800. Shots at ISO 25,600 also reveal staggering detail, but this is the highest I'd ever go. Crisp outlines soften and noise becomes harder to correct when attempting to work on shots taken at ISO 40,000 or above. Thanks to the A7R III's incredibly effective in-body image stabilisation, I rarely found myself needing to creep above ISO 12,800 other than when I was experimenting and pushing

## 'Shooting handheld, and using a shutter speed that's faster than one second, helps define the wisps of smoke'



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# Pinhole, Wizard

With World Pinhole Photography Day coming up on 29 April, **Andy Westlake** shows you how to make and use your own pinhole camera

here's definitely something magical about pinhole photography. The ability to capture images without using a lens has a strange appeal, and the resultant photos have a lovely low-fi aesthetic, with soft details and strong vignetting. If you ever find yourself in a creative rut, it's a great way of making you think afresh about what you're trying to do.

So how to get started with pinhole photography? The easiest way is to buy, or make, a pinhole body cap for your DSLR or mirrorless camera. Unfortunately though, I've found that the results are rarely satisfactory. At the other end of the scale, few photographers have the facilities to work with the large-format film that's favoured by serious practitioners of the medium. What's needed is a middle ground, with the obvious choice being a pinhole camera that uses medium-format film.

It's possible to buy such cameras new; for

Pinhole photos are characterised by a distinctive soft look, as seen in one of my test shots (above)

My camera is based on the G B Kershaw 110 from the 1950s, with its simple lens removed and replaced by a pinhole

## Testbench

instance, Slovenian company Ondu (www.ondupinhole.com) makes beautiful wooden cameras, and I fell in love with its 6x6 Pocket Pinhole when I tested it recently. But its €160 price tag is perhaps beyond what most photographers are prepared to spend. You can buy a rather eccentric pinhole version of the Diana plastic toy camera for £49 from Lomography (shop.lomography.com), but even that might seem extravagant for something you may only use once or twice a year.

The alternative is to make your own. In this article I'm going to show you how to do this, starting from an old second-hand folding rollfilm camera. I used a G B Kershaw 110, a really simple British camera that dates from the mid-1950s. But in principle there are plenty of other cameras going for a song that could be similarly modified; it's really just down to your DIY skills and ingenuity.

## About the camera

I chose the Kershaw 110 for several reasons. First, it's cheap: I got mine off eBay for under £20. Second, it accepts standard 120 rollfilm, which is still widely available and easy to get processed. Third, its basic shutter has two positions, 'I' for instant and 'B' for bulb, and the latter is exactly what we need for pinhole photography. Finally, the folding design means that the camera is nice and portable: at 13.5 x 9.5 x 4cm, it takes up less space than an enthusiast DSLR body.

The price reflects just how basic this camera is: it uses a two-element, uncoated lens that's set to a fixed (and unspecified) focus position. The only degree of exposure control is via two selectable apertures: f/11 and f/16. As a result it's not a camera that anyone would have much interest in using today, so I didn't feel remotely guilty about converting it for pinhole use. The Kershaw 110 also turns out to be very simply constructed, which means that converting it to a pinhole camera is particularly straightforward. It only took me a couple of hours, and that was without knowing in advance precisely what I'd have to do.



## Testbench PINHOLE CAMERA



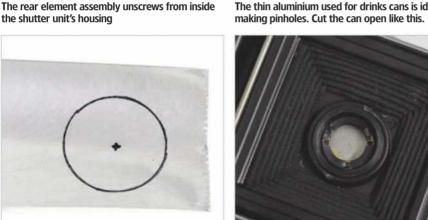
The Kershaw 110's front lens assembly is easily removed by undoing three small screws



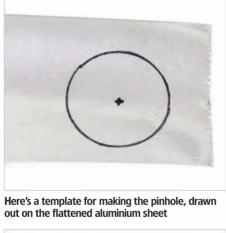
The front element is held in place by nothing more than three small metal tabs



The thin aluminium used for drinks cans is ideal for making pinholes. Cut the can open like this.



This is the pinhole secured in place, before retouching the metal with black marker



the shutter unit's housing



The Kershaw 110's folding design means it's easy to carry around when folded



When working on old cameras, a lens wrench like this can be handy, and costs £10 on eBay

## Step 1: Removing the front element

The first stage in a pinhole conversion is to remove the lens. Many old rollfilm cameras use very simple lenses, and the Kershaw 110's turns out to be a symmetrical two-element design, with one element in front of the shutter and one behind. Don't take apart an expensive model with a nice lens; shoot with it instead!

Removing three screws on the front of the shutter unit allowed me to remove the front element assembly, complete with the speed-selector dial. The glass was held in place purely by three folded-down metal tabs: prising these open with the point of a knife. followed by a small screwdriver, allowed me to remove the lens. I replaced the front surround, essentially for cosmetic purposes.

## Step 2: Removing the rear element

The rear glass lives within another simple assembly that screws into the back of the shutter unit. Removing it reveals that the rear lens element is similarly held with three folded tabs, and again, opening them up with a knife and a screwdriver let me remove the glass. I retained the metal clip that held it in place, so I could use it to hold my pinhole in position.

Having removed the lens, it became evident that it would be easiest to place the pinhole behind the shutter. This won't universally be true - it just depends on the design of whatever model you choose to convert.

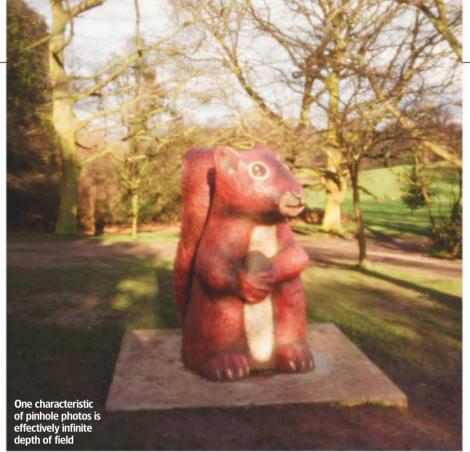
## Step 3: Making the pinhole

Pinholes are incredibly easy to make: you literally just need to stick a pin into a thin sheet of metal. The best material is that used to make drinks cans, so for the next step, based purely upon what I had in the house, I first had to make myself a gin and tonic. Life can be tough at times.

You do need to be careful when cutting open a can, as it will leave sharp edges that are quite easy to injure yourself on. Use a sturdy pair of kitchen scissors to remove the top and bottom. then cut the cylinder open and flatten it out.

I decided to make my pinhole in a metal disc that would fit directly into the back of the shutter housing, which has an internal diameter of 20mm. I drew a circle of this size onto the metal using the rear element mount as a template, and carefully marked its centre. I then carefully cut out the circle using a small pair of scissors, working slightly inside the marked line to give myself some wiggle room for aligning the pinhole later. For other cameras it might make more sense to insert a metal washer where the lens was removed, then fix your pinhole onto that with some black electrical tape.

To make the pinhole itself, carefully press a pin into the centre of the metal disc. Then turn it over, and use a fine file or sandpaper to remove the excess metal that's been pushed through. At this point, also remove as much as possible of the paint and lacquer that was used to decorate the can. The idea is to make a very small hole in as thin a piece of metal as you can practically get.



Step 4: Mounting the pinhole

The final stage is to fix your pinhole in place. The best way to do this depends on the camera you're converting, but I simply dropped my pinhole disc in behind the shutter and secured it using the parts that were originally used to hold the rear element. Make sure your pinhole is reasonably centred: otherwise you might get some vignetting from the shutter housing. This might take a few attempts to get right – then again, you don't have to be absolutely perfect.

**Step 5: Finishing touches**Having secured the pinhole in place, all that's

left is to tidy up. I used a black permanent marker to colour over the metal of my pinhole, along with any bits of metal that I marked during the work. This will minimise any chance of reflections within the camera.

## Using a pinhole camera

Shooting with a pinhole camera tends to be a slightly hit-and-miss affair. At least the Kershaw 110 has an optical viewfinder that gives a reasonably good idea of your composition, although it's not particularly accurate. But with many old folding cameras, it's more a case of point and hope. With an aperture of f/200 or so requiring shutter

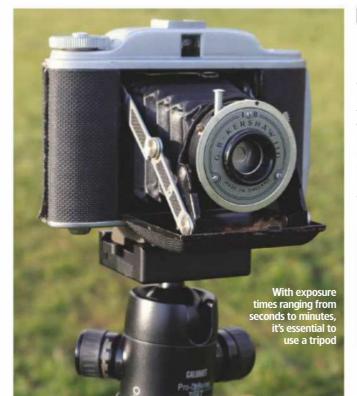
speeds of several seconds or more, it's crucial to use a tripod to keep the camera steady.

To determine how long you need to hold the shutter open in different lighting conditions, you'll need to use some kind of a light meter. Few conventional meters are marked with such tiny apertures, but you can use a suitable multiplication factor; for example, my f/200 pinhole needs an exposure time 100x longer than f/22. Alternatively, some smartphone light meter apps allow you to select pinhole apertures directly. If you're using negative film, either colour or black & white, there's no need to be especially accurate with your exposures; just hold the shutter open for at least as long as the meter says, and rely on the exposure latitude of the film.

Once your exposure gets beyond a couple of seconds, however, you also need to take into account the phenomenon of reciprocity failure, where film gets less sensitive to very low levels of light and needs even longer exposures. For example, if your indicated exposure is  $10 \sec$ , you may in fact need  $20 \sec$  or more to attain the correct exposure. Here the Pinhole Assist iPhone app (£2.99) becomes invaluable, because its built-in light meter can factor in reciprocity failure based on a large database of popular film types.

I've only run a test film through the camera so far, but it works just fine; after all with a pinhole, there's nothing to go wrong. All being well I'll be getting it out again on Worldwide Pinhole Photography Day and shooting it more seriously. Why not give it a try, too?

**Worldwide Pinhole Photography Day** This year, the world pinhole photography day is on Sunday, 29 April. Photographers are invited to make pinhole images that day, and upload them to the shared online gallery at **www.pinholeday.org**. Various pinhole photography workshops will also be held on the day – see the website for more information.



## Choosing a pinhole size

How small does the pinhole need to be? It turns out that this depends on the focal length of your camera; in other words, the distance from the pinhole to the film. On my Kershaw 110 this is about 75mm, which is a typical standard lens for a 6x6 camera. Several online calculators will tell you the pinhole size you need: for instance, the Camera Design Calculator page at www.mrpinhole.com recommended 0.365mm. Obviously there's no way of working to this level of precision; however if you have a finely marked metal ruler, it's not too difficult to judge when your pinhole is 'a bit less than 0.5mm'. This same webpage tells me that such a pinhole has an effective aperture of around f/200, and will require an exposure of 1.7sec with ISO 100 film on a sunny day.



## Billingham Hadley

Small Pro

Andy Westlake tests a sturdy bag that's ideal for mirrorless or small DSLR users

• £200 • www.billingham.co.uk

Billingham has long been the go-to brand for photographers in need of top-quality camera bags, and it's easy to see why. The firm has built up an enviable reputation for producing rugged, hardwearing bags which are competely waterproof and will last for decades. With their classic design and traditional canvas-andleather construction, they're appreciated

by serious enthusiasts and working pros alike. is ideal for photographers using mirrorless or rangefinder kits, or maybe small DSLRs. An update to the existing Hadley Small, this Pro version is essentially the same size and shape, but offers a number of practical refinements borrowed from the larger Hadley Pro and Hadley One designs. The shoulder strap is removable, and you can now carry the bag briefcase-style using the handle that's been added to the lid. There's also a document pocket on the back that will hold small valuables such as your passport or phone, protected by a waterproof zip.

that's easily removable if you ever want to use the bag for other purposes. Billingham supplies two vertical dividers that cover its full height, along

size and shape of your camera and lenses. For example, using only one of the vertical dividers I was able to fit in my Sony Alpha 7 II with 24-70mm f/4 attached, along with a telezoom or a couple of primes beside. But if you install both vertical dividers it's difficult to squeeze in a camera with anything larger than a small prime or a retractable zoom onboard, although you might be able to get three or four more lenses alongside. If at all possible I'd recommend trying before you buy, to see how your kit might fit.

## **Verdict**

In its usual fashion, Billingham has made a great-looking bag that should keep your valuable kit extremely well-protected. and I think the Pro's extra features are worth its £25 premium over the Hadley Small. Indeed my only reservation is the somewhat inflexible divider system. But if you can amake it work, you'll surely love the Hadley Small Pro.

**Carry handle**The generously sized handle has a leather backing underneath to provide a more comfortable grip.

## At a glance

- Small shoulder bag for mirrorless or rangefinder cameras
- Measures 33x14x26cm
- Made in England
- Available in six colours

## Clogballs

Billingham's signature brass 'clogball' closures allow the lid to be opened quickly and silently, and secured easily too.

Removable

strap

The shoulder strap can be

like a briefcase.

The firm's latest offering is a small shoulder bag which

easily removed if you Inside you'll find a generously padded insert, want to use the bag with two padded flaps that allow you to stack a couple of lenses on top of each other with a bit of protection in between them. The insert is the perfect depth to hold a 70-300mm f/4-5.6 telephoto zoom lens, but it's quite narrow, so don't expect to fit in lenses much more than 75mm (3in) in diameter.

How to best configure the bag depends very much on the

## Shoulder pad

The well-padded SP40 is an optional extra, and costs £35. It's available in tan. chocolate or black leather.

## Trolley strap

On the back is a slim strap that will fit over the handle of a suitcase.



There's a zipped pocket at the back, and vertical dividers inside to protect your kit

## ALSO CONSIDER: BILLINGHAM F2.8

If you like the size of the Hadley Small Pro but need a bit more space for lenses, then take a look at the Billingham F2.8. This is a simpler, less-stylish bag which doesn't have as much padding, but can fit in more kit. İts practical divider system will accommodate a mirrorless camera and three zoom lenses.



## TechSupport

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Keeping noise at bay

I have a 10-year-old Nikon D300 and I simply can't afford to replace it with a newer model. In particular, I want to control noise grain better, especially when comparing my shots with a friend's Canon EOS M5 when shooting in lower light. Do you have any advice to give? Karl Grainger

There are several strategies to recommend. First, use as low an ISO sensitivity setting as you can get away with. As long as your subject isn't moving around too fast and you can keep your camera as still as possible, you can get the ISO down to decent noise-suppressing levels. Flash can also help, though care needs to be used to ensure the lighting remains natural looking.

Make sure your exposure is accurate. Underexposure is your enemy. If you need to increase the brightness of your image in post-processing, you will amplify any noise present. Compose carefully to minimise the need to crop, which will also bring grain to the fore. You can also experiment with 'exposing to the right'. This is deliberate over-exposing very carefully to maximise shadow detail while minimising any cost in noise. Basically, push the exposure compensation in small increments until the highlights iust start to bleach, then adjust back a little. Even if the image's mid and light tones look too

bright, you can adjust these using a histogram or curves without sacrificing the shadows. You might be surprised by how much highlight detail can be recovered with a bit of skill. When darkening an image in post-processing you will suppress noise. Finally, use NEF RAW file format and a good-quality image-processing package to manage noise and don't over-sharpen.

## Auto ISO in manual mode on Lumix GH4

A friend of a friend is upgrading from their Panasonic GH4 to the new GH5 and is offering me his camera for a quite attractive price. I currently have a G5 and one feature I'm hoping the GH4 can do, which my G5 can't, is auto ISO in manual mode, so I can choose the shutter speed and aperture independently of the ISO setting. I have heard that the GH4 still can't do this, which rather depresses me – can you confirm or otherwise?

## **Ulric Sandberg**

The good news is that the GH4 does let you use Auto ISO in manual exposure mode. The bad news is that you can't bias the exposure using exposure compensation, even though there is a dedicated EV compensation button. This only works with preset ISO values. It's also not possible to use this feature in movie mode.





## Fuji average and multi-metering modes

I am a newcomer to Fuji, having just bought the X–E1. Before I got it, for many years I had a Canon EOS 450D. The modes for the metering options seem to be rather different or are they just different in name? In particular, what is the difference between the X–E1 average and multi modes, and how do they compare to my EOS 450D's modes?

## **Lori Young**

Each camera manufacturer not only uses different names for their exposure modes, but they also have some subtle variances between them. The closest mode to Fuji's average metering mode with your Canon would have been centre-weighted average mode. In this case, the names are the clue: Fuji averages the brightness of the majority of the frame while Canon adds some extra emphasis to the brightness at the centre of the frame. The Canon method won't be biased so much by big differences in the brightness of the scene outside the central area, which is better for portraits, for example.

Fuji's multi mode is similar to Canon's evaluative metering mode. In both cases, a large proportion of the frame brightness is measured but in a matrix of individual cells. The metering system will evaluate the range of brightness registered by all the cells in the matrix and statistically identify the most common brightness values and set the exposure accordingly. This strategy is designed to avoid unwanted exposure bias caused by small areas of extreme darkness or brightness. This ensures that the areas of the scene that dominate with a similar brightness should be exposed correctly. One difference is that Canon does link the metering sensitivity in evaluative mode around the active focus point. In general, a matrix or evaluative mode is best for general use. Both cameras also offer a form of 'spot' meter which only measures the light in a very small area around a designated point in the frame.

**Q&A** compiled by Ian Burley





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## Tech Talk

## Tony Kemplen on the...

This odd-looking camera from the '60s features one of the early automatic exposure systems

n the 1960s the iconic Kodachrome and other slide films were becomina affordable for the casual amateur photographer, but this brought its own challenges. Colour transparency film is unforgiving when it comes to exposure. With negative films, there is some scope for correcting for underexposure or overexposure at the printing stage, but with a slide, what comes out of the camera goes straight into the projector. Accurate exposure is the key to success. For the technically minded enthusiast, this was not too much of a problem, but for your average family snap shooter, who didn't want the bother of manually setting the camera, there was a definite market for automatic exposure cameras.

Enter the Kodak Auto Colorsnap 35, an odd-looking camera which looks distinctly top heavy, a fact explained by the presence of one of the early automatic exposure systems. By the time this model was launched in 1962, Kodak had already been making massmarket cameras for half a century. designs were evolving, and the curvaceous dark-coloured Brownies of the 1950s gave way



It's possible to set the exposure manually on the Auto Colorsnap 35



Because negative film was used, the underexposure in this photo of a stairwell in Sheffield's Park Hill flats is not so obvious

to the sharp-edged pale grey ranges of the 1960s.

## Can the Colorsnap 35 keep up?

Based on the Colorsnap 35, it's a step up from your simple box camera, but the specs are quite limited. There is a single fixed shutter speed, with the exposure being controlled by stopping down the aperture according to how much light there is. Film speed can be set from 10 to 160 ASA

(ISO in today's terms). At first I thought I must have

misunderstood the scale: ISO 10 seems terribly slow. But at the time the camera went on sale, Kodachrome was rated at 12 ASA, with the newly upgraded 25 ASA version only just coming onto the market.

The exposure system employs a Selenium cell, which generates an electric current depending on how much light hits it. While later electronic exposure meters used resistors to adjust their sensitivity, this one relies

simply on moving a shield in front of the cell to reduce the amount of light reaching it according to the ASA setting chosen.

My experience with older electronic cameras is that there is a tendency to fail with age, and sadly there is no sign of life in the primitive electronics of my example. Fortunately you can set the exposure manually, using an EV (exposure value) in the range of 11 to 15, which covers a useful range of daylight conditions. The Kodak Anaston lens, with a surprisingly precise focal length of 43.9mm, has a maximum aperture of f/5.6, and this, together with the scale focusing down to 2.5ft, means accurate focus is fairly easy to achieve.

I knew I was pushing my luck (see above) with the low light level in this stairwell in Sheffield's iconic Park Hill flats. I'd not have risked it if I'd been shooting slide film, but using negative film, I just about got away with the underexposure. The resulting increased grain probably adds to the atmosphere.

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Printed in the UK by the Wyndeham Group Distributed by Marketforce, 5 Churchill Place, London E14. Telephone 0203 787 9001

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Tony Kemplen's love of photography began as a teenager and ever since he has been collecting cameras with a view to testing as many as he can. You can follow his progress on his 52 Cameras blog at 52cameras.blogspot.co.uk. More photos from the Autocolorsnap 35 at www.flickr.com/ tony kemplen/sets/72157666313628458/

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16-35mm F4 L IS USME++ / Mint- £639 - £67
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24-70mm f4 L IS USM E+ £549
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24mm F1.4 L USM E++ £699
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24mm F3.5 L TSE MkII E++ £1,189
28-135mm F3.5-5.6 IS USMUnknown £79
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40mm F2.8 STMMint- £109
50mm F1.8 EF II E++ £59
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70-200mm F4 L IS USME++ £599 - £639
70-200mm F4 L USM E++ £299 - £339
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100-300mm F4.5-5.6 USME+ £79
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100mm F2.8 EF Macro
100mm F2.8 USM Macro E++ £259
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135mm F2 L USM E++ £599 150-600mm F5-6.3 SP Di VC USD TamronE+ / E++ £429 - £449
180mm F3.5 EF L Macro USM E++ £899
180mm F3.5 L Macro USM E++ £849
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200-400mm F4 L IS USM with Internal 1.4x Extender Lens E++ £8,399
200-500mm F5-6.3 Di LD AF Tamron E+ £369
200-50011111 F5-6.5 DI ED AF TAITIONE+ £369
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300mm F2.8 L USM
400mm F2 0 L LICM F . C2 440
400mm F2.8 L USM E+ £2,449 400mm F4 D0 IS USM E+ / E++ £2,149 - £2,299
400mm F4 DU IS USW E+ / E++ £2,149 - £2,299
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500mm F4 L IS USM MKII
500mm F4.5 L USME+ £2,149
500mm F8 SP Reflex TamronE+ £199
1.4x EF ExtenderExc £79
1.4x EF Extender
1.4x EF Extender       Exc £79         1.4x EF II Extender       E++ £149         1.4x EF MkII Extender       Mint- £179
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1.4x EF Extender     Exc £75       1.4x EF II Extender     E++ £145       1.4x EF MkII Extender     Mint- £179       2x EF Extender     As Seen / E++ £59 - £118       2x EF II Extender     E++ / Mint- £169 - £178
1.4x EF Extender       Exc £75         1.4x EF II Extender       E++ £145         1.4x EF MkII Extender       Mint- £179         2x EF Extender       As Seen / E++ £59 - £112         2x EF IExtender       E++ / Mint- £169 - £176         2x EF MkIII Extender       E++ £288
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1.4x EF Extender       Exc £75         1.4x EF II Extender       E++ £145         1.4x EF MkII Extender       Mint- £179         2x EF Extender       As Seen / E++ £59 - £112         2x EF IExtender       E++ / Mint- £169 - £176         2x EF MkIII Extender       E++ £288

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50-500mm F4-6.3 Apo DG HSM	E+ £319
50mm F2.8 EX DG Macro	E++ £149
70-300mm F4-5.6 Apo DG	E++ £49
150mm F2.8 EX DG Macro HSM	E++ £249
170-500mm F5-6.3 Apo	E+ £159 - £199
180mm F3.5 EX Macro APO	E++ £299
300mm F2.8 APO DG HSM	
400mm F5.6 AF	E+ £99
500mm F7.2 Apo	E+ £149
600mm F8 Reflex	E+ £179
800mm F5.6 APO EX DG HSM	E++ £3,499

G2 Millennium Kit	E+ £1,3	49
21mm F2.8 G + Finder	E++ / Mint- £449 - £5	49

28mm F2.8 G	E++ £249 - £279
35-70mm F3.5-5.6 G Vario	E++ £369
90mm F2.8 G	E+ / E++ £169 - £229
90mm F2.8 G + GG3 Hood	E++ £199
16mm Viewfinder	Mint- £139
21mm Viewfinder	Mint- £169
Aluminium Case	E++ £75
GC-110 Body Case (G1)	E++ £35
GC21 Case (G2)	E++ £89

25mm F2.8 MM	E++ £34
28-70mm F3.5-4.5 MM	.E++ / Mint- £249 - £279
28-80mm F3.5-5.6 AF U	Inused / New £349 - £399
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50mm F1.4 MM	E++ £24
50mm F1.7 MM	E++ £129 - £14
70-300mm F4-5.6 AF E	++ / Unused £349 - £64
100mm F2 AE	E+ £59
135mm F2 (60 Year Edition)	Unused £2,37
135mm F2.8 AE	E+ £149 - £22
135mm F2.8 MM	
180mm F2.8 AE E	++ / Unused £349 - £54
200mm F3.5 AE	E+ / E++ £129 - £149
200mm F4 AE E	++ / Unused £159 - £449
300mm F4 MM	
TLA20 Flash	E+ / E++ £15 - £2
TLA280 FlashAs	Seen / Unused £29 - £14
TLA30 Flash	E+ / Unused £19 - £49
TLA360 Flash	E+ / E++ £59 - £7

FujiFilm X-Pro2 Body + MHG-X	(Pro2 GripE++ / Mint- £1,089
X-Pro2 Body Only	E++ £1,199
X-T2 Black Body Only	E++ £1,149
X-T20 Body Only - Black	Mint- £649
X-T20 Body Only - Silver	Mint- £649
X-T1 Body + Vertical Grip	E++ £489 - £499
X-T1 Graphlite Body Only	Mint- £529
X-E1 Silver Body Only	E+ £179
X-T10 Black Body Only	E+ £319
X100F - Black	E++ / Mint- £1,049
X100F - Silver	E++ £1.049

Olympus E-M1 MkII Black Body + HLD-9 GripMint- £	1,249
E-M1 Mkll Black Body OnlyMint- £	1,249
Pen-F Black Body + ECG-4 Grip. E+ / Mint- £719 -	£789
Pen-F Black Body OnlyE+	£669
Pen-F Silver Body + ECG-4 GripE++ £699 -	£719
E-M1 Black Body + HLD-7 Grip E+ / E++ £429 -	£499
E-M1 Black Body Only E+ / E++ £379 -	£439
E-M1 Silver Body + HLD-7 Grip E++	£479
E-M5 MKII Body Only - Black Mint-	£679
E-M5 Silver Body OnlyE+	£229

Panasonic GH5 Body On	nlyE++ / Mint- £1,349 - £1,449
GH4 Body + Grip	E+ / E++ £579 - £699
GX80 Body Only	E++ / Mint- £329 - £419
GX7 Body Only	E++ £249 - £259
G6 Body Only	Mint- £199
G2 Body Only	E++ £79
	F++ £69

Sony A7S II Body Only	.E++ / Mint- £1,899 - £2,099
A7R II Body Only	E++ £1,649 - £1,749
A7 II Body + VG-C2EM Grip	Mint- £999
A7 II Body Only	Mint- £889
A7S Body Only	Exc £839
AGEOD Rody Only	Mint. £1 040

Canon EOS TDX Body Uniy	UNKNOWN £ 1,699
EOS 1D Mkll Body Only	E+ £249 - £279
EOS 1D MkIII Body Only	E+ / E++ £379 - £429
EOS 5D MKIII Body Only	E+ £1,399
EOS 5DS Body + BG-E11 Grip	Mint- £1,999 - £2,259
EOS 5DS Body Only	E++ £2,099 - £2,149
EOS 5D Mkll Body + BG-E6 Grip .	E++ £649
EOS 5D Mkll Body Only	E+ £589 - £599
EOS 7D MKII Body Only	E+ £849
EOS 700D Body Only	E++ £279
EOS 600D Body Only	
EOS 650D Infra Red Body Only	E++ £429

	Bint- £129 E+ £179
	E+ £119
Nilsen DAC Destriction	F / Mi-+ .00.000 .00.000

Nikon D4S Body OnlyE	++ / Mint- £2.989 - £2.99
D4 Body Only	
D3 Body Only	
Df Body Only	
D810 Body Only	
D800E Body Only	E++ £1,049
D800 Body Only	E+ / E++ £949 - £1,049
D750 Body Only	E+ £949
D700 Body Only	E+ £449
D600 Body Only	E++ £619
D500 Body OnlyE	++ / Mint- £1,429 - £1,479
D300 Body Only	
D7200 Body Only	
D7000 Body Only	Mint- £299
D3100 Body Only	
D5200 Body Only	Mint- £229
D5100 Body Only	Mint £179
Sony A900 Body Only	
A300 Body Only	
A3000 Body Only	
A33 Body Only	
A35 + 18-55mm	
A350 + 18-70mm	
A290 + 18-55mm	
A200 + 18-70mm	
A200 Body Only	E++ £129

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80mm F5.6 GXM (680)	E++ £299
135mm F5.6 GX (680)	E+ £99
150mm F4.5 GXM (680)	E++ / Mint- £149 - £199
190mm F8 Soft Focus (680)	E++ £249
210mm F5.6 GX (680)	E+ £89 - £99
300mm F6.3 GX (680)	E++ £279
300mm F6.3 GXM (680)	E++ £199

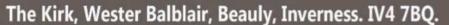
H5D Complete with 40MP Digital Back E++ £6,449
H4D Complete with 60MP Digital Back E++ £10,995
H4D + Prism + 50MP Digital Back E++ £5,849 - £6,499
H3D Body Only E++ £649
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H1 Body + HV90 Prism + 16/32 MagE+ £649
H1 Body + Prism + P30 Digital BackE+ £1,689
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H1 Complete + Phaseone P20 Digital back E+ £1,849
H1 Complete + Phaseone P25 Digital back E+ £2,149
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35mm F3.5 HC E+ / E++ £949 - £1,299
50-110mm F3.5-4.5 HCE+ £1,299
50mm F3.5 HC E+ / E++ £949 - £1,199
120mm F4 HC Macro Exc / E++ £879 - £1,299
150mm F3.2 HC E+ / E++ £949 - £1,099
1.5x HTS Tilt/Shift Converter E++ / Mint- £2,199 - £2,285
Extension Tube H 13mm E++ £125 - £149 Hmi100 Polaroid Mag E+ / E++ £49 - £149
HS Grid Screen E++ £49 - £149

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903SWC Complete	E+ £2,29
Super Wide C Complete	Exc £84
205TCC body + WLF + Back	E+ £2,49
503CX Complete	E+ £899
553ELX Black Body Only	E+ £399
553ELX Chrome Body Only	
40mm F4 C Black	Exc £44
50mm F4 CF	As Seen £249
50mm F4 CF FLE	
120mm F4 CF Macro	Exc £34
120mm F4 CFE Macro	E++ £99
150mm F4 C Black	
150mm F4 CF	Exc / E++ £249 - £39
160mm F4.8 CB	E++ £34











Prices correct when compiled. E&OE.

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Extension Tube 16	E+ £29
Extension Tube 16E	E+ / E++ £65 - £75
Extension Tube 21	E+ £25
Extension Tube 32	Exc £20
Extension Tube 55	E+ £25
Extension Tube 56E	E++ £79
HC Prism	E+ £49
HVM Turret Finder H	E++ / Mint- £169 - £189
Magnifying Hood	Exc £59
PM45 Prism	E+ £239
PM5 Prism	E+ / E++ £169 - £199
PM90 Prism	E+ £159
PME3 Meter Prism	E++ £289
PME51 Meter Prism	
PME90 Meter Prism	E++ £399

## Leica M

M-P Chrome Body Only	E++ £3.649
M Monochrom Body Only (Typ 246) - Black Ch	
M Monochrom Black Body Only	E+ £2,399
M (240) Black Body Only E+ / E++	£2,749 - £2,979
M (240) Chrome Body Only E+ / E++	£2,849 - £2,989
M9 Black Body Only Exc / E++	£1,799 - £1,899

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l	R9 Anthracite Body Only	E+ £529
l	R9 Black Body + Motorwinder	E+ £549
ı	R8 Black Body + Motorwinder	E++ £399
l	R8 Black Body Only	E+ / E++ £319 - £349
ı	R8 Chrome Body Only	E+ / E++ £319 - £349
ı	R7 Black Body Only	E++ £299
ı	R7 Chrome Body Only	E++ £299
l	R6.2 Black Body Only	E+ £399
ı	R6 Chrome Body Only	E++ £349
ı	RE Black Body Only	E+ £179
	R4 Black Body Only	
ı	R4 MOT Black Body Only	E+ £95
l	R3 Black Body Only	E+ £99
l	SL2 Anniversary Body Only	E++ £449
l	SL2 Black Body Only	E+ £279
	SL Chrome Body Only	
	SL Chrome Body Only	E+ £149
ı		

## Sony AF

8mm F3.5 Aspherical IF MC Samyang Mint- £169
10-20mm F4-5.6 EX DC Sigma E++ £179
11-18mm F4.5-5.6 DT E++ £25
12-24mm F4.5-5.6 EX DG SigmaE+ £26
16-50mm F2.8 DT SSME+ £28
16mm F2.8 Fisheye E++ £49
17-70mm F2.8-4 DC OS Macro HSM Sigma E+ £19
18-200mm F3.5-5.6 DT E+ £239 - £279
18-200mm F3.5-6.3 XR Di II TamronE+ £9
18-55mm F3.5-5.6 SAM E++ £4
18-70mm F3.5-5.6 DTE++ / Mint- £6
20mm F1.8 EX DG Sigma E++ £21!
24-70mm F2.8 IF EX DG HSM Sigma E++ £34
24-70mm F2.8 Di VC USD Tamro Mint- £44
28-80mm F3.5-5.6 Asph SigmaE+ £3
28mm F1.8 Asph Sigma Exc £9
28mm F1.8 EX DG SigmaE++ £149 - £199
30mm F1.4 EX DC Sigma E++ £18
35mm F1.4 AS UMC Samyang E++ £25
50mm F1.8 DT E++ £5
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60mm F2 Di II (if) Macro TamronNew £26
70-300mm F4-5.6 Di Tamron E+ / E++ £29 - £39
70-300mm F4-5.6 Di VC USD Tamron Mint- £199
70-300mm F4-5.6 DG Macro Sigma E++ £39
70-300mm F4.5-5.6 G SSM E++ £39
75-300mm F4.5-5.6 AF E+ / Mint- £69 - £79
85mm F1.4 ZAE++ / Mint- £699 - £78
170-500mm F5-6.3 Apo Sigma E++ £19
300mm F2.8 ATX Tokina E++ £49
300mm F2.8 G SSM II E+ £4,84
500mm F8 Reflex E++ £379

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F6 Body + MB40 Grip E++ £949
F5 Body Only E+ £249
F4S Body Only E+ £149
F4 Body Only E++ £179
F100 Body + MB15 Grip
F90X + MB10 Grip E+ / E++ £69 - £89 F90X + MF26 Back Exc £39
F80 Black Body Only E+ / E++ £39 - £69
F80 Chrome Body Only
F65 Chrome Body OnlyE+ / E++ £29
F65 Quartz Date Chrome Body Only E++ £29
F50 Black Body Only E+ £15 - £19
F50 Chrome Body OnlyE+ £15
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105mm F1.4 E ED AF-S
105mm F2 AF DC E+ £519 105mm F2.8 AFS G VR Micro E+ / E++ £379 - £429
12-24mm F4 G AFS DX EDE++ / Mint- £399
14-24mm F2.8 G AFS ED E+ / E++ £839 - £949
14mm F2.8 AFD E++ £749
16-35mm F4 G AFS ED VR E++ £729
16-85mm F3.5-5.6 G ED VR AFS DX Unknown / Mint- $\pounds179$ - $£259$
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18-55mm F3.5-5.6 G AFS DX VRExc £49
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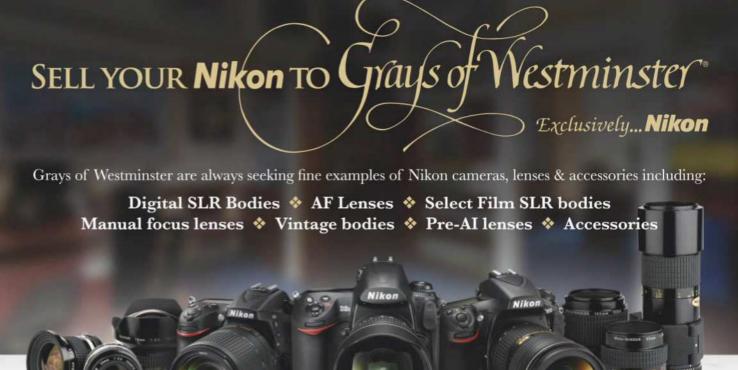


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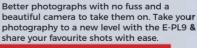
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## Roger Hicks considers... 'The Last Indian Wars,

Brezno, Czech Republic', 2014, Naomi Harris

e-enactors are always fascinating. Well, if they're any good, anyway. But in her book EUSA (published by Kehrer Verlag, 2018) Naomi Harris adds another dimension by concentrating on Europeans recreating American tropes, and Americans recreating European tropes. Here we see 'Native Americans' in the Czech Republic. From the other side of the Atlantic we see young 'Dutch girls' at a tulip festival or 'Germans' with sausages. In Sweden, there are buckskin-clad 'American Frontiersmen'.

Technical detail is irrelevant: they could have been shot with almost anything as long as the quality is good enough for reproduction. It is. More than good enough. Likewise, you need an eye for composition. Ms Harris has one. Again, that's all that needs to be said.

## The sum of the parts

The idea is what matters. I've always thought that the phrase 'a picture is worth a thousand words' is at best a half-truth. Very often, you'd need a truly brilliant writer to paint a word-picture that said as much as a photograph, but you'd often need an even more brilliant photographer to explain something fully without words. Put words and pictures together, though, and you usually have something that is more than the sum of its parts. Often, far more.

This is what intrigues me about this book: it works on so many levels, and different levels come to the fore in different pictures. Some are just fun. Others verge on child abuse - at best, some of the less cheerful children in these pictures must have been



bribed to dress up by their parents. There are those that elicit admiration for the attention to detail, and those that simply look a bit sad, as if the people in them have no real life in real life. Some festivals and gatherings, especially in the United States, recreate the historical origins of the participants; others are clearly the fruits of childhood fantasies or inspirations from books. A few are patently used as

tourist traps by local chambers of commerce, though inevitably even the most genuine and innocent tend to have a strong touristic component.

**Cultural appropriation** 

Another question is cultural appropriation, though it can often be difficult to draw boundaries between admiration, exploitation, patronisation and simply missing the point. It's a bit like the story of the Londoner who goes into a Cornish pub and asks for a ploughman's lunch. He complains when he is brought sausage, egg and chips, but the landlord says, 'Well, that's what the ploughman eats.'

The real magic for me, though, is that this book is inspiring. Photographing re-enactors is something most of us can do, and that many of us have done. Naomi Harris reminds us that it's worth going out and doing it.

Roger Hicks has been writing about photography since 1981 and has published more than three dozen books on the subject, many in partnership with his wife Frances Schultz (visit his new website at www.rogerandfrances.eu). Every week in this column Roger deconstructs a classic or contemporary photograph. Next week he considers an image by David Graham.

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